TEACHERS AS LEARNERS: A STUDY OF ELEMENTARY TEACHERS' IMPLEMENTATION OF THE IOWA PROFESSIONAL DEVELOPMENT MODEL

by

Dana A. Schon

A dissertation submitted in partial

fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Dissertation Committee:
David Darnell, Ph.D., Chair
Sally Beisser, Ph.D.
Emily Calhoun, Ph.D.

Dean of the School of Education:
Janet M. McMahill, Ph.D.

Drake University

Des Moines, Iowa

2011

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Approved by Committee:

_____
Dr. David Darnell, Chair

_____
Dr. Sally Beisser

_____
Dr. Emily Calhoun

_____
Dr. Janet McMahill
Dean of the School of Education

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An abstract of a Dissertation by
Dana A. Schon
May 2011
Drake University
Advisor: David Darnell

Research in the field of professional development, though growing, is void of studies exploring the implementation of models of professional development, particularly in districts with high achievement. This inquiry was designed to examine the perception of elementary teachers of their implementation of the Iowa Professional Development Model in a high achieving Iowa school district and to explore operational variability regarding the implementation of the model.

Naturalistic inquiry (Lincoln & Guba, 1985) provided the theoretical framework for this study. Data were collected through multiple sources: an online survey that provided not only demographic data but also self-reported implementation data; district documents, including the comprehensive school improvement plan and the building goal documents; and focus group interviews. In naturalistic inquiry data collection and analysis occur simultaneously. To facilitate analysis, survey data were organized into cross-tabulations; and the text responses to the open-ended survey question were processed via a Concordance© program, entered into data tables, and coded according to emergent themes using the naturalistic approach to the constant comparison method. Focus group interview transcriptions were processed and analyzed using the same approach.

Findings suggest teachers had an abstract, general understanding of the Iowa Professional Development Model, but that they would welcome the opportunity to deepen their understanding. Teachers reported engaging to the greatest extent in the professional development components of collaboration, reflection, and analysis of student achievement; but they reported engaging least in peer observation and coaching. Overwhelmingly, teachers viewed professional development as focused on their learning and identified time as a critical resource. Teachers acknowledged the importance of both building and district leadership to systematize their work in school improvement. Although teachers engaged in the components of professional development, their participation and response varied. Teachers felt the pressure of competing interests and limited time and opportunity to address them.

District leaders should consider communicating and explaining the Iowa Professional Development Model with the intended outcome of a full implementation at both the district-wide and school levels. In addition, leaders should consider periodic audits of time to increase awareness as to how teachers and leaders are spending their time.

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Acknowledgments

My study would not have been possible without the unwavering support of my committee. I extend many thanks to Dr. David Darnell, Dr. Sally Beisser, and Dr. Emily Calhoun for their faith in me and their commitment to my work. I owe a special debt of gratitude to my committee chair, Dr. David Darnell. I will be forever grateful for his accessibility, his insights, and his encouragement.

Additionally, the supportive leadership and teaching staff at the site where I was privileged to collect my data were critical in the success of my study. Thank you for providing me such a dynamic venue in which to learn.

Lastly, I am not sure the words *thank you* are sufficient to express the deep gratitude I feel toward my husband for his dedication to my work and to me. Through his immeasurable support and that of my three children, I was able to realize my goal.

Chapter 1

Introduction

Students who get the best teachers learn at twice the rate of students taught by average teachers (Hanushek & Rivkin, 2004).

Professional development research has gained momentum since 1980 as a focus for educational research (Joyce & Calhoun, 2010; Joyce & Showers, 2002; Hawley & Valli, 1999; Darling-Hammond et al., 2008; Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003). Prior to the 1970s, professional development essentially meant replacing older textbooks with newer (Joyce, Wolf, & Calhoun, 1993). In fact, the 1966 Coleman Report (Coleman, Campbell, Hobson, Mc Partland, Mood, Weinfeld, & York, 1966), would have brought into question the rationale for investing in teacher learning and development. The Coleman Report (Coleman et al.) concluded that schools, and by inference, teachers, had little, if any, influence on student achievement. Student achievement, the study purported, was contingent upon the student's background and social status. Since the Coleman Report, however, a number of studies have established that effective teachers and schools can positively impact student achievement in spite of the student's social status and background (Hanushek & Rivkin, 2003; Hattie, 2009; Marzano, 2007; Nye, Konstantopoulos, & Hedges, 2004). Furthermore, sustained and intensive professional development is related to gains in student achievement (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Hawley & Valli, 1999).

After the Coleman Report, professional development was delivered mostly through workshop and institute models that flourished in the mid-1970s (Joyce, Wolf, & Calhoun, 1993). Also called in-service training, the workshop model served to "bring

outside expertise to teachers to increase their knowledge, often about a discrete new program or approach" (Loucks-Horsley et al., 2003, p. 47). The term *staff development* became common during this time (Joyce, Wolf, & Calhoun, 1993). During the 1980s and 1990s, other models of staff development emerged and were identified, according to Sparks and Loucks-Horsley (1990), as the following: a) the individually guided model, b) the observer/assessment model, c) the development improvement process model, d) the training model, and e) the inquiry model.

The ambit of the contemporary focus of professional development has broadened to include not only ongoing teacher learning but also organizational learning. One such model within this paradigm is the inquiry approach, often referred to as action research. Inquiry provides opportunity for continuous professional development within a school improvement framework (Calhoun, 2002; Guskey, 2000; Richardson, 2003). Another current model, the consumer or demand-driven delivery model, reflects a menu-type approach where service providers supply a menu of options for teachers (Sykes, 1999). A dynamic field, professional development continues to evolve in its complexity (Guskey, 2000; Joyce, Wolf, & Calhoun, 1993).

Catalysts to the momentum of professional development include state and federal policies that target school improvement. When operationalized, these policies become reform initiatives at the district and building levels. A primary focus of many such initiatives is professional development at the district and school levels (Elmore, 2004). In Iowa, the policy that addresses professional development is the Teacher Performance, Compensation, and Career Development legislation (2001), which captured the intent of the General Assembly "to create a student achievement and teacher quality program that

acknowledges that outstanding teachers are a key component in student success" (2001). The law requires that districts and schools create a professional development program grounded in research-based instructional strategies and aligned with a school's achievement needs. Critical to the program, according to the law, is the utilization of multiple instructional improvement components: achievement data, analysis, theory, classroom demonstration and practice, technology integration, observation, reflection, and peer coaching. Districts and schools are also responsible for evaluating the efficacy of the professional development programs they provide.

Responding to the requirement of the Teacher Performance, Compensation, and Career Development legislation (2001), the Iowa Department of Education (DE) collaborated with multiple stakeholder groups (e.g. Area Education Agencies (AEA), the Iowa State Education Association (ISEA), School Administrators of Iowa (SAI), the Iowa Association of School Boards (IASB)) and experts in the field of professional development in order to support districts in operationalizing the law. The result of these efforts was the *Iowa Professional Development Model (IPDM) and Technical Guide* (State of Iowa, 2009). The model (see Appendix A) reflects the research of Joyce and Showers (1980) which examined the impact of various training components.

Although a number of different approaches to professional learning in the area of education exist (Sparks & Loucks-Horsley, 1990; Joyce & Calhoun, 2010; Hawley & Valli, 1999), Joyce and Calhoun (2010) asserted that any of the various models, if implemented well, has the potential to benefit teachers, and consequently, schools. The intent of this study is to examine elementary teachers' experiences in implementing the Iowa approach, the Iowa Professional Development Model. Furthermore, the study

should raise questions and offer insight as to the operational variability of the implementation and what might be done to increase the level and consistency of implementation for the purpose of accomplishing gains in student achievement.

Purpose of the Study

The purpose of this research is to examine elementary teachers' perceptions of their implementation of the Iowa Professional Development Model (IPDM) and to explore any operational variability regarding their implementation of the IPDM. Through this study, state and district educational leaders will have a better understanding of how teachers respond to and participate in the implementation of the IPDM. Insight regarding this connection between the IPDM and its implementation has the potential to impact student achievement. Cohen and Hill (2001) found that teachers' opportunities to study and learn new curriculum materials and assessment were an important connection between state policy reform and student learning. Multiple research studies demonstrate a connection between teacher efficacy and student achievement (Hanushek & Rivkin, 2003; Odden, Borman, & Fermaninch, 2004; Sanders & Rivers, 1996; Wright, Horn, & Sanders, 1997). Sanders (2000, p. 334) noted, "…differences in teacher effectiveness is the single largest factor affecting academic growth of populations of students." What teachers learn and know greatly influences what students learn and know (Darling-Hammond & McLaughlin, 1999).

Providing professional development to support teachers and principals in learning effective instructional strategies and improving curriculum marks the path toward increased teacher effectiveness (Sanders & Rivers, 1996; Sanders, 2000). Darling-Hammond et al. (2009) purported that when job-embedded professional development

includes opportunities for teachers to apply their learning to planning and instruction, teachers are more likely to change their teaching practices; and such changes can subsequently lead to gains in student learning. Effective professional development increases the chances that the content and skills students learn will be meaningful and relevant (Hawley & Valli, 1999). The recommendations from this study may be able to support educational leaders in more fully implementing the model in order to increase teacher response to the model with the goal of increased student achievement.

Naturalistic inquiry, a qualitative methodology (Lincoln and Guba, 1985), provided the framework of this investigation. Because my intent was to explore elementary teachers' participation in and response to the Iowa Professional Development Model in their context, the naturalistic approach was fitting. Seeking to understand the context prior to conducting focus group interviews, I collected data initially through surveying a closed population sample of all certified staff within the district who teach kindergarten through fifth grade students (Schonlau, Fricker, & Elliott, 2001). The survey provided demographic data about the teaching staff and descriptive detail regarding the extent of engagement in professional development across the seven elementary buildings in the district. Furthermore, the survey included an open response question inquiring as to how teachers conceive of professional development. Additionally, survey data were used as the basis for identifying staff members who indicated they have background knowledge of the Iowa Professional Development Model and a willingness to participate in a focus group interview (Krueger, 1994).

From the survey data that was gathered, I used purposive sampling to identify participants for focus groups (Krueger, 1994) consisting of between six and eight

teachers representing each grade kindergarten through fifth and no more than two specials area (i.e. art, music, physical education, guidance, media, English language learners, and/or special education). Twelve teachers indicated a willingness to participate in the focus group interviews. Efforts to increase participation through a snowball technique (Huberman & Miles, 1994; Van Meter, 1990) did not yield any additional participants. Consequently, two focus groups were conducted. A semi-structured interview process (Kvale, 1996; Bernard, 2002) was used to facilitate the focus group interviews. Document review of building and district professional development plans, the comprehensive school improvement plan, and other related documents were included in the data collection process as well.

Rationale and Significance of the Study

All educational experiences are not created to be equal, but the social effects of educational deprivation are shared by all (Darling-Hammond, 2006). Students who do not have access to a quality education are at increased risk of dependency on welfare and crime (Darling-Hammond). Nevertheless, discrepancies persist in a number of areas from funding to allocation of resources, but in particular, in access to high quality instruction (Darling-Hammond). Several studies have indicated the positive correlation between teacher effectiveness and student achievement (Haycock, 1998; Hanushek & Rivkin, 2003; Marzano, 2003; Nye, Konstantopoulos, & Hedges, 2004). Nye, Konstantopoulos, and Hedges (2004) contrasted primary students who had a teacher scoring at the 75^{th} percentile (effective) in terms of pedagogical knowledge against primary students who had a teacher scoring at the 25^{th} percentile (not so effective). The difference in

achievement gains was over one third of a standard deviation in reading and almost half a standard deviation in mathematics.

In his examination of over 800 meta-analyses related to student achievement, Hattie (2009) found that 16-60% in student achievement can be attributed to teacher and class variability in contrast to the 20% attributed to school effects. “Teachers using particular teaching methods… are more likely to have the above average effects on student achievement,” claimed Hattie (2009, p. 126). Many teaching strategies including concept mapping, reciprocal teaching, Direct Instruction, questioning, and problem-based learning have a measurable impact on student learning (Hattie, 2009).

One of the means through which teachers develop methods, strategies, and skills is professional development. Timperley, Wilson, Barrar, and Fung’s (2007) meta-analysis of 72 studies assessed the effects of professional development on student academic outcomes, identifying an effect size of $d = 0.66$. Professional development in science ($d = 0.94$) and writing ($d = 0.88$) yielded the most significant impact on student achievement according to the Timperley analysis (2007). “The process of professional learning for the purpose of improving student achievement, professional development, is at the core of increasing the quality of instructional practice and boosting student learning on a large scale,” observed Elmore (2004, p. 125).

Large scale changes have been initiated through legislative policies designed to increase student achievement through performance-based accountability measures (Elmore, 2004). Iowa has had a long history of policy legislated to establish professional expectations for teachers and has a state professional standards board that has enacted high standards for teachers (Darling-Hammond & McLaughlin, 1999). The Teacher

Performance, Compensation, and Career Development legislation (2001) and the Iowa Administrative Code Chapters 12 (1988) and 83 (1989) directly address the criteria by which professional development programs should be established to support teacher career development. Although such policies have been influenced by the research of Nye, Konstantopoulos, and Hedges (2004), Elmore (2004) argued that policies such as these seem to be disconnected from the work they prescribe in schools.

Transferring what is known about best practice into action in schools continues to be a barrier. Pfeffer and Sutton (2000) contended that knowledge is readily available from multiple sources ranging from universities to consultants; however, the knowledge that is acquired is not implemented in large part due to a failure to enact change in the organizational culture and philosophy. Existing, entrenched cultures offer a sense of security that is threatened by the implementation of new ideas (Pfeffer & Sutton). Unfortunately, policies and legislation cannot change organizational culture or teachers' and administrators' philosophies and conceptions of teaching and learning; professional development is critical to effecting changes in beliefs and assumptions (Hattie, 2009).

The benefits of gathering data about how teachers perceive and respond to the IPDM can impact the effectiveness of the model and the operational variability of the implementation within the building. Increased consistency of implementation has the potential to yield increased teacher learning and subsequent application of that learning to instruction (Darling-Hammond et al., 2009; Joyce & Calhoun, 2010; Weiss & Pasley 2006). Increased teacher knowledge and efficacy attained through systematic, ongoing, job-embedded, connected-to-practice professional development can yield increases in student achievement (Cohen & Hill, 2001).

Researcher Positionality

One distinction between qualitative and quantitative methodology is the role of the researcher as a human instrument (Denzin & Lincoln, 2000; Lincoln & Guba, 1985). In this role, the researcher mediates the data that are collected (Creswell, 1998); and because the researcher is human, the researcher's biases and values impact the findings and conclusions of the study (Merriam, 1998). However, Lincoln and Guba (1985) explained that the naturalistic researcher has the opportunity to acquire a deeper level of understanding and to communicate that understanding through thick, rich description that serves to create a more complete reconstruction. The researcher, noted Lincoln and Guba (1985) is responsive, adaptable, perceptive of the context and the phenomenon as whole, cognizant of both tacit and propositional knowledge, process-oriented, and capable of clarifying and summarizing immediately in the context while exploring atypical responses at the moment they are received. In the interest of full disclosure and of guarding against unethical or unintentional influences on my interpretation of how elementary teachers participate and respond to the Iowa Professional Development Model, the following discussion describes my personal experiences germane to this study.

A native of Iowa and a life-long resident, I have served students of Iowa in education for the past 19 years. After teaching secondary language arts for 13 years, I became a kindergarten through twelfth grade school improvement coordinator in a district that enrolls approximately 1,600 students. One of my primary responsibilities was to design and deliver professional development aligned to the Iowa Professional Development Model. As a teacher, I had been a passionate learner and remember being

excited to share that passion for learning with other teachers through my work with professional development. What I learned in my first years as an administrator was that much like students, teachers fall along a continuum as learners. My challenge was to help build the context and rationale for their learning such that they would be more likely to embrace our collective efforts to improve student achievement. As I transitioned to my current role as executive director of elementary education in a district that enrolls approximately 8,600 students, my challenge has remained the same. Consequently, in an effort to understand better my own context as both a researcher and a practitioner, I selected a site for my study that closely matches my current context in terms of demographics, location, and student achievement. Iowa educational values, my professional experiences, and the culture of a Midwest upbringing are part of who I am as a researcher and have the potential to influence my reconstruction of teachers' participation in and response to the Iowa Professional Development Model.

Definitions of Terms

Comprehensive School Improvement Plan (CSIP): a district's 5-year plan for improving learning based upon student achievement data, federal and state regulations, and stakeholder input.

High-performing Elementary School: A school with more than 72% of its students scoring at or above the 41st percentile as measured by national norms in mathematics and reading on the Iowa Tests of Basic Skills. The school is guided by the following principles associated with high achievement: 1) common mission, vision, values, and goals; 2) a system of intervention; 3) collaborative teaming; 4) use of data to

guide decision-making; 5) community and family involvement; 6) sustainable leadership (Blankstein, 2004).

Iowa Professional Development Model (IPDM): technical support and guidance for implementing the requirements related to professional development as set forth in the Teacher Performance, Compensation, and Career Development legislation (2001).

Iowa Student Achievement and Teacher Quality Act of 2001: legislation requiring the Iowa Department of Education to establish a model for professional development in addition to establishing the expectation that all districts implement professional development for the purposes of attaining gains in student achievement.

No Child Left Behind Act of 2001 (NCLB): federal legislation establishing the goal of high academic achievement for all students to be accomplished through a variety of means, one of which is the implementation of high quality professional development.

Statement of the Problem

Research in the field of professional development, though growing, is void of studies exploring the implementation of models of professional development, particularly in districts with high achievement. The intent of this inquiry was to examine elementary teachers' perceptions of their implementation of the Iowa Professional Development Model (IPDM) in a high-performing school district with an enrollment between 7,000 and 9,500 students in kindergarten through twelfth grade and to understand the operational variability and what might be done to increase the level and consistency of implementation for the purpose of accomplishing gains in student achievement. As both a researcher and practitioner, I sought to identify a district with demographics and achievement levels similar to that of my own such that I would be able to increase the

possibility of the transferability of my findings to my own context. I currently serve in a district with an enrollment of approximately 8,600 students; therefore, I sought a district with an enrollment close to this number.

Research Questions

The following research questions guided this study:

1. What do elementary teachers know about the Iowa Professional Development Model and its implications for their teaching and learning?
2. How do elementary teachers respond to and participate in the implementation of the Iowa Professional Development Model?
3. Does response and participation vary among teachers?

Chapter 2

Review of the Literature

Introduction

"We can get a greater improvement in teacher quality, at a lower cost, by investing in teacher learning" (Wiliam, 2006, p. 16).

Producing well-qualified teachers "is to greatly enhance their professional learning across the continuum of a career in the classroom" (Sykes, 1999, p. xv). Therefore, the need for high-quality professional development is greater than ever before (Guskey, 2000). Knowledge bases across all disciplines continue to expand requiring new types of skills for all educators, skills and content knowledge that can be acquired through professional learning. Elmore (2004) noted, "Teachers don't get better by applying knowledge and skill they already have—they are stuck because their existing knowledge isn't enough. They get better by having access to new knowledge, and discovering that they can use it in ways that they did not fully appreciate before" (p. 239). As more is understood about the nature of adult learning and organizational change, professional development remains a target for reform (Elmore, 2006; Guskey, 2000). Approaches to professional development have transitioned among some of the following: a focus on training and demonstration with feedback, an emphasis on school-based learning including the use of coaches, a study of content-specific curriculum, a data-driven approach, and the use of online or virtual learning environments (Hill, 2009).

The current climate of performance-based accountability has increased the demand for "new knowledge of curriculum, pedagogy, and organizational improvement at the school and system level" (Elmore, 2004, p 3). However, regardless of the program

or model, "implementation of all approaches to professional development are uneven" (Joyce & Calhoun, 2010, p. 33), and the problem of how to operationalize within schools and systems what is known to be best practice persists (Elmore, 2004: Darling-Hammond, 2010). Although some effective professional development programs exist, the United States and its individual states lack a fully developed system of instructional support like that found in high-achieving nations like Finland (Darling-Hammond, 2010).

Though a national system of support is not on the horizon and approaches and models vary (Joyce & Calhoun, 2010), research points to key structural components and features that are common to successful programs that are in place (Birman, Desimone, Porter, & Garet, 2000; Garet, Porter, Desimone, Birman, & Suk Yoon, 2001; Hawley & Valli, 1999; Joyce & Showers, 1980). These characteristics include (a) form or type of model; (b) duration; (c) collaborative participation; (d) focus on both content knowledge and pedagogy; (e) active learning through engagement in meaningful dialogue, planning for implementation, practice, observation, and review of student work; (f) coherence or connectedness to other district initiatives and achievement goals; and (g) support and follow-up.

Additional research (Darling-Hammond & McLaughlin, 1995) supports teachers in engaging in complex thinking and reflection about their practice. Specifically, Darling-Hammond and McLaughlin argued that professional development should be ongoing; rigorous; inclusive of opportunities for collaboration, reflection, modeling, and coaching; job-embedded; and grounded in inquiry. Addressing the outcomes for professional development, Elmore (2004) noted that effective professional development should develop the capacity of teachers to work collaboratively to solve problems that arise from

their practice. Beyond teacher learning at the core of professional development is the goal of increased student learning and achievement (Elmore, 2004; Mundry & Loucks-Horsley, 1999).

Iowa's effort to increase student achievement through increased teacher learning is evident in the adoption of the Iowa Professional Development Model (IPDM). In the domain of professional development, a model provides the means to organize and structure teacher and administrator learning (Joyce & Calhoun, 2010). Beyond providing organization and structure to the development and implementation of professional development in Iowa schools, the IPDM has facilitated the enactment of the legislation entitled Teacher Performance, Compensation, and Career Development (2001).

Although a model can provide a framework or a guide for professional development, no single model represents the prototype for all professional development (Joyce & Calhoun, 2010). Educators have a number of major research-based models available from which to choose (Guskey, 2000): (a) a training model; (b) an observation/assessment model; (c) involvement in a development/improvement process; (d) study groups; (e) inquiry/action research; (f) individually guided activities; and (g) mentoring.

The IPDM is an integrated design, meaning it includes the attributes of the training model, the observation/assessment model, and the inquiry/action research model. Combining models can help address both site level and system level needs while strengthening the intentional, ongoing, and systematic nature of effective professional development (Guskey, 2000). Furthermore, the integration of models results in the convergence of key principles of effective professional development identified in the

synthesis of research (Hawley & Valli, 1999): a) goals and student performance; b) teacher involvement; c) school based; d) collaborative problem solving; e) continuous and supported; d) information rich; e) theoretical understanding; and f) part of a comprehensive change process.

Underlying the training model is the principle of theoretical understanding. Teachers need access to results of research in comprehensible forms that expand their professional knowledge base and address the learning needs of their students (Hawley & Valli, 1999). The training model includes not only the presentation of the theory in which the strategy is grounded, but also modeling or demonstration of the skills or models of teaching, practice in both simulated and classroom settings, feedback, and coaching for transfer of the skills and strategies to the classroom (Joyce & Showers, 1980). These components rest on the principles of information rich, school based, and collaborative problem solving. To be information rich, professional development should include multiple sources of information and feedback (Hawley & Valli, 1999). This means that teachers need multiple supports in learning and acquiring skills and knowledge that will help them to produce increased results in terms of student achievement (Elmore, 2004).

When the training model is enacted at the school based level and includes teachers in collaborative problem solving, teacher "motivation to learn and to engage in school change efforts increases" (Elmore, 2004, p. 140). Training is considered the most efficient and cost-effective professional development model for reaching large groups of educators (Guskey, 2000).

The observation/assessment model engages teachers in observing each other teach, dialoguing about the lesson and student learning, and sharing feedback. As a result,

teachers become more reflective in their practice and gain insights to teaching and learning (Joyce & Showers, 2002). However, the model rests on an assumption that the observer knows and can identify quality teaching (Hawley & Valli, 1999). Additionally, this model, though beneficial to both the observer and the observed, requires a large commitment of both time and financial resources.

Inquiry and action research involves teachers determining their individual and collective goals, experimenting with practices, discussing their results, and learning with each other as well as from outside experts (Richardson, 2003). Also referred to as the teacher-researcher model, this model can vary in efficacy depending on teachers' skill in generating appropriate research questions and analyzing data (Hawley & Valli, 1999). Proponents of the inquiry approach, Joyce and Calhoun (1995) described inquiry as a fluid process of continuous renewal that engages the entire system in examining and improving teaching and learning. Sparks and Loucks-Horsley (1990) explained this model as one in which teachers identify an area of interest, collect data, and make changes based upon the data. In light of the systemic needs of a school district, Richardson (2003) recommended using an inquiry approach judiciously such that individual autonomy is balanced against expectations for collective inquiry.

The IPDM accounts for both the interests of the systems and the teacher by adopting the organizational learning philosophy espoused by Joyce and Calhoun (1995) and by providing for individual learning needs through expectations for the Individual Teacher Career Development Plan. Guskey (2000) advocated for the amalgamation of models: "Combining models in thoughtful ways can provide a highly effective means to professional growth and improvement at both the individual and organizational levels"

(p. 29). By integrating an inquiry model with both the training model and the observation/assessment model, the IPDM serves multiple building and district needs.

Though the IPDM is comprised of the components associated with effective professional development, successful implementation hinges on multiple factors: (a) teacher and administrator knowledge and understanding of the IPDM itself as well as an understanding of the initiative and the rationale for that initiative (Elmore, 2002; Loucks-Horsley et al., 2003); (b) considerations of teachers as individual learners (Hargreaves & Fullan, 1992; Huberman & Miles, 1984; McKibbin & Joyce, 2001); (c) structural supports (Leithwood, Louis, Anderson, & Wahlstrom, 2004); (d) organizational climate and culture (Fullan; Hargreaves & Fullan, 1992; Joyce & Showers, 2002; King & Newmann, 2000); and (e) leadership (Leithwood et al., 2004; Robinson, 2007; Robinson, Lloyd, & Rowe, 2008).

Teacher and Administrator Understanding of the IPDM

Teachers and administrators need to see the connection between the initiative or strategy and their learning or that of their students. Even when structures like common planning time and common curriculum expectations exist, instructional practices do not change because teachers do not have a reason to change (Elmore, 2002). Furthermore, entrenched beliefs undermine efforts to implement new, more effective strategies (Elmore, 2002). In some organizations, the fear of change coupled with deeply held cultural values prevents people from doing what they know to be best practice (Pfeffer & Sutton, 2000). However, surfacing teachers' and principals' mental models can engage them in questioning their professional practice while challenging their thinking (Senge,

2006). Helping teachers and principals to be reflective about their practice and beliefs can facilitate the cultural changes required for successful implementation (Fullan, 2001).

Leithwood et al. (2004) found that "providing appropriate models of best practice and beliefs" to be a fundamental leadership practice that influences student learning (p. 9). A professional development framework can facilitate communication; show how the professional development plan connects to needs identified by the district, school, or building; and identify gaps in a particular plan (Loucks-Horsley et al., 2003). "Communicating the 'big picture' – what you are doing and why—builds teachers' understanding and commitment" contended Loucks-Horsley et al. (2003, p. 323). Additionally, a model brings "a sense of order to efforts to improve the effectiveness of professional development" and provides for a means to evaluate the efficacy of professional development programs (Guskey & Sparks, 2002, p. 5).

Teachers as Individual Learners

"The health of teachers as individual learners is basic to the health of…models of staff development" (Joyce & Calhoun, 2010, p 32). "Teachers are more active than passive, more ready to learn than resistant, more wise and knowledgeable than deficient, and more diverse and unique than they are homogeneous," observed Clark (1992, p. 75) in his summary of the research on teacher thinking. Joyce and Calhoun (1995) posited that the collective health of the staff and subsequently the ethos of the professional organization can be cultivated through building closer professional communities, engaging teacher leaders in studying the school, and embedding the study of teaching and learning into the school day. An approach via which such a learning culture can be created is the inquiry approach (Joyce & Calhoun, 1995). Similarly, Richardson (2003)

concluded that the inquiry approach honors teachers' sense of autonomy, expertise, and individual efficacy while supporting school reform; however, any approach to professional development should be based upon the intended outcome (Richardson, 2003; Joyce & Calhoun, 2010).

Structural Supports

Time span and contact hours both have independent effects on opportunities for active learning via professional development (Garet et al., 2001). Guskey (2000) noted that 30 or more contact hours of professional development extending over a period of time has been shown to have positive effects on student achievement. The National Association for State Directors of Teacher Education and Certification reported that teachers spend only 15 days in professional development over a 5-year period in accordance with state licensure requirements (NASDTEC, 2005). In contrast, Japanese teachers spend over 20 hours per week for collaborative work and planning (Darling-Hammond, 2005).

Elmore (2004) contended that if schools are to realize significant gains in achievement, then they need to create structures that promote learning of new practices. Those structures include opportunities for teachers to observe each other teach, time to practice new learning, and feedback regarding whether students are learning what they have taught. Additionally, structures need to support teachers in learning collaboratively, in becoming a learning organization (DuFour & Eaker, 1998; Elmore, 2004; Senge, 2006; Sparks, 2002). The overarching design of the system has an effect on student performance (Fullan, 2001, Senge, 2006, Sparks, 2002); therefore, the system must be designed to support sustainable changes in teaching and learning (Sparks, 2002).

Organizational Climate and Culture

Professional development is at the core of continuous improvement (Elmore, 2004). Continuous implies ongoing, without end. It would follow then, that professional development is also continuous, ongoing. To support the kind of ongoing school improvement described by Reeves (2006) and Fullan (2001), professional development must first be about changing beliefs and patterns in order to establish a culture of change. Guskey (2000) underscored the challenge in changing school cultures noting that "to change school culture is much more difficult and complex than changing structures" (p. 151). Cultivating a culture of change means "producing the capacity to seek, critically assess, and selectively incorporate new ideas and practices –all the time" (Fullan, 2001, p. 44). Fullan was clear about the fact that a culture of change does not mean adopting new strategies and programs one after another.

Joyce, Wolf, and Calhoun (1993) articulated a similar concept, the self-renewing school. In a self-renewing school, the organization is engaged in an ongoing process of collective inquiry whereby new things are learned and some practices deemed no longer proficient are sacrificed in order to attain increased student learning. Important to the self-renewing school is shifting teachers' attitudes to believe that they have the capacity to make changes in the organization.

For a culture of change to grow, the school organization itself would need to be redesigned (Elmore, 2004). Elmore described a system with the capacity to support the new learning of teachers in the classrooms with expert support as they seek to attain executive control over the strategy or skill, a system with differentiated organizational roles and allocation of resources to support priorities. In this type of organization,

professional development can become the "instrument of school improvement" (Elmore, 2004, p. 121).

Leadership

Critical to successful implementation is leadership. Hattie (2009) distinguished between two major types of leadership: instructional leadership and transformational leadership. Principals who are instructional leaders focus on high expectations for teachers and students, clear objectives, and a climate conducive to learning. Principals who are transformational leaders focus on engaging with teaching staff to "inspire them to new levels of energy, commitment and moral purpose such that they work collaboratively to overcome challenges and reach ambitious goals" (Hattie, 2009, p. 83). Surprisingly, Hattie (2009) found in a meta-analysis that the instructional leader has a greater effect on student achievement and more so at the elementary.

Robinson, Lloyd, and Rowe (2008), also examined different dimensions of leadership through a meta-analysis study. One dimension was that of promoting and participating in teacher learning and development. In terms of "leadership that not only promotes but directly participates with teachers in formal or informal professional learning" (p. 656), Robinson, Lloyd, and Rowe found 17 effect sizes from 6 studies with a mean effect size of 0.84, noting that

> The leadership in the higher performing schools was reported by teachers to be, among other things, more focused on teaching and learning, to be a stronger instructional resource for teachers, and to be more active participants in and leaders of teacher learning and development (p. 657-8).

The benefits to leaders who participate with staff in professional learning include a deeper appreciation of the stages of change and duration of the process; an understanding of what staff face in implementing new learning, which results in more real support for the change; and a greater respect from their staff, which results in greater influence over how they teach (Robinson, 2007).

Addressing both instructional and transformation leadership styles, Fullan (2001) posited that the convergence of the theoretical underpinnings of instructional leadership and the theoretical base explaining transformational leadership offers insights as to how to problem-solve the issues facing education. Fullan contended that learning organizations are needed to respond to the call for improvements in student learning. Senge (2006) also advocated for the cultivation of learning organizations. In learning organizations, professional development is ongoing as teachers examine data, make informed decisions, plan for instruction, collect data, and begin the process again.

Although models of professional development can serve to guide the improvement of instruction, factors from school organization and culture to leadership have powerful potential to impact the implementation of the model and result in operational variability. As suggested by this literature review, the number of studies identifying attributes associated with effective professional development has increased, but fewer studies exist that explore the implementation of full-scale models of professional development.

Chapter 3

Methodology

Introduction

The purpose of this research was to examine elementary teachers' perceptions of the level of implementation of the Iowa Professional Development Model (IPDM) in a high-achieving, 4A school district in Iowa and to explore any operational variability regarding the implementation of the IPDM. Naturalistic inquiry (Lincoln & Guba, 1985), a qualitative approach, provided the structural flow best suited to support this study for several reasons: (a) The context was crucial in determining whether the findings of the study would have meaning in other school districts; (b) the nature of examining implementation from the perspective of those implementing necessitated a human instrument who could differentiate interactions and take biases into account; and (c) thick description was vital in communicating the essence of the implementation of the IPDM (Lincoln & Guba, 1985). This process was an iterative one as the data were repeatedly analyzed and reduced to a coherent set of meanings (Miles & Huberman, 1983). However, "data analysis was not a matter of data reduction alone, but of induction" (Lincoln & Guba, 1985, p. 333). Constructions that emerged were shaped by my interactions with the sources of the data and reconstructed into meaningful wholes. Heuristic processes of coding and categorizing, triangulating data, and developing and maintaining an audit trail increased the probability that trustworthiness resulted (Lincoln & Guba, 1985).

Participants

The site of this study was selected based upon multiple criteria, one of which was that the site be a school district in the Midwest with high achievement as evidenced by 72% or greater of students scoring at or above the 41st percentile using national norms on the reading comprehension and mathematics subtests of the Iowa Tests of Basic Skills (ITBS). Performance at or above the 41st percentile in reading, mathematics, and science on the ITBS using national norms is considered proficient in Iowa. The criterion aligned with the trajectory as identified by the State of Iowa according to expectations set forth in the NCLB legislation. Another set of criteria used to identify the site were based upon attributes of schools with high achievement. Blankstein (2004) associated the following principles with high achievement: (a) common mission, vision, values, and goals; (b) a system of intervention; (c) collaborative teaming; (d) use of data to guide decision-making; (e) community and family involvement; (f) sustainable leadership. Because I am both a researcher and a practitioner, I was interested in a site with demographics similar to the district in which I work. Consequently, I searched for a site that also had multiple elementary schools and a pre-kindergarten through twelfth grade enrollment of between 5,000 and 9,000 students. The lowest enrollment of a 4A school in Iowa is about 3,000. My current position is in a district with an enrollment of nearly 8700 students; therefore, I narrowed the range of enrollment when selecting my site to reflect more closely my district.

To identify a site most aligned to these criteria, I contacted the former Iowa Department of Education Literacy Consultant and Reading First Director who, in her 10 years with the Department, had the opportunity to visit hundreds of schools across the

state and analyze multiple data sets. By applying the established criteria, the Director generated a list of five districts. From that list, I selected a district that most closely aligned to the criteria.

Participants in this study initially included a closed population sample of all certified staff within the district who teach kindergarten through fifth grade students (Schonlau, Fricker, & Elliott, 2001). A survey was administered to this closed population. Data from the survey provided me insight as to teachers' self-reported level of knowledge about the IPDM and the extent to which they engaged with the components of professional development as identified in the model (State of Iowa, 2009). In addition to supplying this information, the survey was also used to collect demographic information. Survey data helped to establish a profile of the elementary portion of the district. Furthermore, survey data were used as the basis for identifying staff members who indicated they have background knowledge of the IPDM and a willingness to participate in a focus group interview (Krueger, 1994).

Participants for focus groups were selected because they shared certain common characteristics (Krueger, 1994; Patton, 1980), which in this study, included knowledge of the IPDM and responsibility as an elementary teacher in a large district. Furthermore, the focus group interview was conducted for the purpose of collecting data around participants' attitudes, insights, and perceptions (Krueger, 1994). The intent of this study was to gather data about teachers' perceptions of their implementation of the IPDM as well as to understand their response to and participation in that implementation. Consequently, the focus group interview as a means of data collection aligned with the spirit and intent of the study.

From the survey data that were gathered, I used maximum variation sampling (Patton, 1980) to identify participants for focus group interviews. Maximum variation sampling (Patton, 1980) fit with my intent to detail the context and denote unique variations that had emerged as a result of teachers' implementation of the IPDM. The survey yielded a total of twelve respondents, representing multiple grade levels and specials areas, who indicated a willingness to participate in focus groups.

In an effort to increase the number of participants, I employed a snowball technique (Huberman & Miles, 1994; Van Meter, 1990). Through several email communications among the seven principals and myself and between confirmed participants and myself, I inquired as to whether principals and confirmed participants would be able to identify any other staff members whom I could invite to participate. Unfortunately, neither the principals nor the confirmed participants identified any other staff members.

Instrumentation

As the researcher, I became the primary instrument for data collection (Kvale, 1996; Lincoln & Guba, 1985). In describing the unique qualifications of the human-as-instrument, Lincoln and Guba (1985) listed the following attributes: (a) responsive, (b) adaptable, (c) perceptive of the context and the phenomenon as whole, (d) cognizant of both tacit and propositional knowledge, (e) process-oriented, (f) capable of clarifying and summarizing immediately in the context, and (g) capable of exploring atypical responses at the moment they are received in order to gain a deeper level of understanding. I also used an online survey instrument (See Appendix B) constructed according to the Tailored

Design Method (Dillman, Smyth, & Christian, 2009) to collect demographic data and identify participants for the focus group interviews.

In an emergent design such as the one in this study, the researcher, or human instrument, does not know what is not known and therefore incorporates the techniques of interview, observation, and document analysis (Lincoln and Guba). To facilitate the interviews, I utilized a semi-structured interview protocol (Kvale, 1996; Bernard, 2002). Although the semi-structured interview provided a general script and list of topics (See Appendix C), it remained open-ended and was the best approach in light of the fact I would have only a single opportunity to interview the identified staff members (Bernard, 2002).

Design

The nature of this study was such that the design emerged, developed, and unfolded as data were gathered, analyzed, and coded into units and categories in an iterative process. Multiple participants held varied values and the findings yielded multiple realities (Lincoln & Guba, 1985) with regard to the understanding and implementation of the IPDM. Furthermore, the dynamics of the participants and the contexts in which they work caused the conclusions of the study to be dependent upon the context. These considerations made the naturalistic paradigm fitting for this study (Lincoln & Guba, 1985).

Procedures

The initial data for this study were collected via an online survey that was accessed by the closed population of participants through a link sent to their email account (Dillman, Smyth, & Christian, 2009). I personalized the email communication in

order to establish a connection between the respondent and myself with the intent of "drawing the respondent out of the group" (Dillman, Smyth, & Christian, p. 272). After the first email communication was sent, a reminder email was sent within a week to those who had yet to respond (Dillman, Smyth, & Christian). The intent of the survey was twofold. First, I sought to gather data across all seven elementary buildings regarding teachers' general knowledge of the Iowa Professional Development Model and the extent to which they engaged with the model. Second, I used data from the survey to identify elementary teachers who indicated they have an understanding of the Iowa Professional Development Model and were willing to participate in a focus group interview (Krueger, 1994).

Focus group interviews, because they can be implemented in multiple ways, are especially useful when the topic to be explored is more general in nature and the purpose is to gather data from multiple perspectives (Bogdan & Biklen, 2007). Focus groups work well "to determine the perceptions, feelings, and manner of thinking" of participants (Krueger, 1994, p. 19).

A semi-structured interview guide (Kvale, 1996; Bernard, 2002) was used to facilitate the focus group interviews. Bernard (2002) recommended the semi-structured interview as the best approach when the researcher will have only one chance to interview someone. Because focus group interviews were intended to be conducted with different groups (Krueger, 1994), I did not anticipate more than a single interview with any participant. Furthermore, the semi-structured approach supports the intent of the unstructured interview to engage the participant in expressing him or herself openly, but is based on the use of an interview guide (Kvale, 1996; Bernard, 2002). An interview

guide should be followed if "reliable, comparable qualitative data" are desired (Bernard, 2002, p. 205).

The gatekeeper (Bogdan & Biklen, 2007) was the superintendent of schools. Prior to arriving on site, I communicated both electronically and via the phone with the superintendent regarding the purpose and design of this study and the benefits to the district. Through the superintendent, I was able to gain access to the elementary principals who then forwarded email communication from me regarding the survey along with the link to the survey itself to their respective elementary certified staff members (Dillman, Smyth, & Christian, 2009). From this survey data, I identified the sample for the focus group interviews.

Additionally, I accessed the district's school improvement plan (CSIP) via their website in order to understand more fully the demographics of the site and the district's plan for improvement. The executive director of teaching and learning provided me copies of the goal setting templates used by staff members to create and monitor their individual professional development plans. I was also able to access building-specific improvement plans, which became additional points of data to be analyzed.

Once the participants for the focus groups were identified, I extended an email invitation specifying the date, time, and location for each focus group interview. Two respondents indicated they could no longer participate. I tried unsuccessfully using a snowball technique (Huberman & Miles, 1994; Van Meter, 1990) to replace them. Moving forward, I conducted both focus groups on site. Using a voice recording device, I also scribed manually so as to be able to capture non-verbal cues. While on site for the focus group interviews, I had an opportunity to visit informally with the executive

director of teaching and learning and with the elementary director of teaching and learning, which served to clarify my understanding of some of the processes and structures supporting professional learning within the district.

Upon the completion of the interviews, I enlisted the support of a transcriptionist to transcribe the interview data so that I could engage in the process of data reduction and analysis (Lincoln & Guba, 1985; Miles & Huberman, 1994). In a naturalistic inquiry "during the process of data collection and recording, most design changes will emerge" (Lincoln & Guba, 1985, p. 267). Consequently, I attended closely to what was emerging during the process of conducting and recording the focus group interviews. When the transcriptions were completed, I, with permission from participants, emailed them a copy of the transcription for verification. All responded that the transcription accurately reflected the conversation that occurred.

As the study unfolded through the process of collecting and analyzing data, I engaged in the process of triangulation, "corroborating evidence from different sources to shed light on a theme or perspective" (Creswell, 1998, p. 202). "Triangulation of data is crucially important in naturalistic studies" (Lincoln & Guba, 1985, p. 283), so I validated each focus group transcript and experience against the other and all groups against the district's CSIP and against the survey data to corroborate the emergent themes and perspectives.

Data Analysis

According to Lincoln and Guba (1985), data analysis in naturalistic inquiry is the reconstruction of data that were constructed initially by the participants. Throughout the data collection process, I engaged in analysis. The recursive nature of the data analysis

process helped to inform each successive stage of data collection. The constant comparative method guided the data analysis process (Glaser & Strauss, 1967); however, I applied this method through the lens of the naturalistic paradigm as espoused by Lincoln and Guba (1985). Because I sought to create a reconstruction rather than a grounded theory, the Lincoln and Guba design was germane. Although the stages of data processing articulated by Glaser and Strauss (1967) are incorporated in a naturalistic inquiry, Lincoln and Guba (1985) provided "operational refinements" (p. 344) to guide more explicitly the naturalistic inquirer in engaging in data processing. Applying these refinements, I engaged in the "tasks of unitizing, categorizing, filling in patterns, and member checks" (Lincoln & Guba, 1985, p. 344).

Survey data provided me the first opportunity to collect and analyze data. The purpose of collecting survey data was two-fold. I sought first to understand the broader context of the implementation of the Iowa Professional Development Model (IPDM) in the district at the elementary level; and second, to generate a list of participants for my focus groups. Beginning with the collection of responses to an online survey I generated via the Qualtrics© Survey Software program (See Appendix B), I generated a cross-tabulation of the demographic data including the teacher's grade level or area of concentration, the years of experience the teacher had both in the district and his or her total years of experience, the gender of the teacher, and the teacher's self-assessment of his/her knowledge of the Iowa Professional Development Model (IPDM) as each of these related to the teacher's self-reported level of engagement with each of the components of professional development articulated in the technical guide that supports the IPDM (State of Iowa, 2009) (see Appendix D for cross-tabulation of survey data). Using a structured

analysis protocol response sheet (Calhoun, 2004) found in Appendix E, I conducted an initial analysis of the cross-tabulation data in order to understand teachers' knowledge of the IPDM and the extent to which they were engaging with the components of professional development. These reflective notes constituted a first step in the sorting process (Creswell, 1998). Additionally, initial review of these data provided context and clarity of direction for my focus group interviews.

Within the survey, I included a single open-response question: *What constitutes professional development?* I extracted the text responses to this question into a Word document and began my analysis by critically reading and rereading each response and taking notes in the margins as to key insights and emergent themes. Repeated readings support the researcher in "finding new directions, refining questions, developing emergent meanings, and honing a conceptual scheme" (Ely et al., 1991, p. 89).

Though I had identified an initial list of key words and concepts from my margin notes, I sought to check my lists against frequency lists I could generate by using an online software program, Simple Concordance© (Reed, 2010). Lincoln and Guba (1985) contended, "the naturalist would find such data processing [frequency counts] peripheral to his or main interests, although not, of course, useless" (p. 336). Therefore, after converting my responses to a text file format and correcting misspellings, I used the keyword function of the Simple Concordance Program© to create a frequency list of all words in the 129 responses to the open-ended survey question with the intent of exploring possible patterns and emerging themes. Denzin and Lincoln (2000) noted, "Word counts are useful for discovering patterns of ideas in any body of text, from field notes to response to open-ended questions" (p. 776). Light and Yasuhara (2008) found using

automated text analysis techniques yielded comparable results with substantially less manual coding. They found this type of analysis particularly effective for short, focused, open-ended survey questions. In spite of the Light and Yasuhara findings, I applied both a manual and automated approach so as to address trustworthiness criteria, in particular that of credibility, through using multiple measures (Lincoln & Guba, 1985).

From the word frequency lists, I noted important, most repeated words. This meant eliminating unimportant words including a, the, this, should, by, could, have, as, at, and other prepositions and pronouns. Ongoing analysis resulted in reducing the data to key words and helped prepare for analysis of words according to units and subsequent categories (Huberman & Miles, 1983; Lincoln & Guba, 1985).

To establish categories of word groups according to their meanings, I used the concordance function in Simple Concordance©. "Concordance is a key word in context (KWIC) feature that shows a specific number of characters before and/or after a key word" (Light & Yasuhara, 2008, p.3). Concordance facilitated analysis of the use and intent of words. Through the iterative process of reading, recording notes, generating word lists, reflecting, and comparing new lists to previous lists, I continued to refine key insights and themes (Glaser & Strauss, 1967; Huberman & Miles, 1983).

Next, I read and re-read the focus group interview transcriptions, making margin notes, reflecting on the meaning of the transcriptions, and comparing the units of meaning among the transcriptions and the survey data. I adjusted some of the initial categories I had established as a result of analyzing the open-ended survey question. After generating key words and units from the both sets of transcriptions (Lincoln & Guba, 1985), I incorporated the Simple Concordance© (Reed, 2010) software to generate

word frequencies and concordances. I then analyzed this data set in light of the categories and themes that were emerging. The next step was to merge the concordances from the open-responses and the transcriptions and to analyze these in light of the reflective notes and memos I had taken as well as the district's comprehensive school improvement plan (CSIP) and building goal plans. Through this integrated data collection and analysis, the criteria for the categories and themes emerged, grounded in the data; and I reached a point of saturation in terms of the categories and themes (Lincoln & Guba, 1985). The set of categories provided me "a reasonable construction of data" (Lincoln & Guba, 1985, p. 347). I processed these themes and categories in a codebook, which I developed and refined as my research and analysis progressed (Denzin & Lincoln, 2000). The codebook reflects the organized hierarchical list that I used to organize and sort my units of data (see Appendix F).

Having reduced the units to categories and the categories to themes, I then converted the transcriptions to Microsoft Word data tables that would facilitate my coding of units into the categories and themes that had emerged and were identified in my codebook. Miles and Huberman (1994) demonstrated that table structures are effective tools for data analysis, and LaPelle (2004) documented the facility with which Word can be used to analyze text from "key informant interviews, focus groups, document reviews, and open-ended survey questions" (p. 86). Once I had sorted the tables and analyzed the data in this format, I revisited the data in their entirety in preparation for writing the construction.

Trustworthiness

I applied four criteria to ensure the trustworthiness of my findings: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). To establish credibility, Creswell (1998) recommended applying at least two of eight possible strategies. Consequently, I employed several strategies beginning by engaging with the site "sufficiently long to detect and take account of distortions that might otherwise creep into the data" (Lincoln & Guba, 1985, p. 302). Prior to conducting the focus groups on site, I was in communication with the superintendent and the executive director of teaching and learning. These communications coupled with my review of the district's comprehensive school improvement plan (CSIP), the goal planning forms from the elementary buildings, the information I gathered from researching the district's website, and the data I collected from the survey, provided me with an opportunity to learn the context and develop an awareness of "multiple influences" in an effort to minimize distortions (Lincoln & Guba, 1985, p. 304) prior to conducting the focus group interviews. Having this background knowledge supported me in establishing trust and rapport with focus group participants such that they were open and honest in their responses. Furthermore, I persisted in my observations and in seeking answers to the questions that arose as a result of my engagement on site.

Triangulation is another "mode of improving the probability that the findings and interpretations will be found credible" (Lincoln & Guba, 1985, p. 305). I triangulated the sources of data including the CSIP data, the building goal data, survey data, interview data, and observation data to improve the credibility of the findings. Additionally, I conducted member checks through which participants had the opportunity to "judge the

accuracy and credibility of the account" (Creswell, 1998, p. 203). Per consent of the participants, I emailed electronic copies of the transcriptions to the participants and requested that they note any aspects of the transcript that did not reflect the conversation we had had.

Krefting (1991) identified several other strategies for assessing credibility, two of which I incorporated: reflexivity and interview technique. Because my role as researcher was not independent of my role as school administrator, I practiced reflexivity. I maintained an awareness of my feelings and thinking both as a researcher and as an administrator who faces some of the same challenges related to professional development in my own district. I generated notes in the margins of the transcriptions and other documents I analyzed in order to document my thinking as an administrator and, in the case of the transcriptions, how that influenced the follow-up and probing questions I asked as well as my understanding of the responses. The types of follow-up questions I asked enhanced the interviewing process, resulting in internal consistency in the focus group interviews, and helped "verify observations and meanings" (Krefting, 1991, p. 178).

Transferability is another criterion by which trustworthiness is established. The role of the naturalist is not to establish external validity or generalizability; rather, the role of the naturalist is to provide "the thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether transfer can be contemplated as a possibility" (Lincoln & Guba, 1985, p. 316). Through the details with which I described the findings, the inclusion of select quotations, and the reconstruction of the interplay between the respondents and myself as interviewer, I strived to provide

readers “a measure of vicarious experience; were they to be magically set down in the context of the inquiry they would have a feeling of déjà vu” (Lincoln & Guba, 1985, p. 359).

A third criterion of trustworthiness is consistency, which is defined by Lincoln and Guba (1985) in terms of dependability. To establish dependability, I employed a code-recode strategy (Krefting, 1991). I coded a segment of the data, waited two weeks, and then recoded the same data, comparing results. Using the Simple Concordance© (Reed, 2010) software program and the Word tables for data analysis helped me to consider the data through multiple formats. Comparing my analysis from one format to another contributed to the dependability of the findings.

The fourth criterion of trustworthiness established by Lincoln and Guba (1985) is confirmability. I documented the data collection and analysis processes I implemented in order to create an audit trail that could be followed by an external auditor seeking to understand how and why decisions were made (Krefting, 1991). Included in the audit trail were recorded interviews, emails documenting efforts to snowball for more participants, the interview guide, transcriptions, margin notes, reflective notes and memos, the cross-tabulation table, concordance tables, word frequency tables, Word data tables, the structured response of analysis of the cross-tabulation, the codebook, the survey questions, and emails confirming member checks. Furthermore, the software programs used to facilitate data analysis also served to make the analytical procedures I employed more transparent (Anfara, Brown, & Mangione, 2002).

Chapter 4

Findings

Introduction

The purpose of this inquiry was to examine elementary teachers' perceptions of the implementation of the Iowa Professional Development Model (IPDM) within their building and across their district and to explore any operational variability regarding the implementation. Several research questions guided this study:

1. What do elementary teachers know about the Iowa Professional Development Model and its implications for their teaching and learning?
2. How do elementary teachers respond to and participate in the implementation of the Iowa Professional Development Model?
3. Does response and participation vary among teachers?

Several analysis procedures were incorporated to reveal the findings presented in this chapter. First, I generated a cross-tabulation using the Qualtrics© online survey program through which I had created and disseminated my survey. I then utilized a structured response to generate reflective notes around the descriptive data presented by the cross-tabulation report. Next, I extracted the responses to the open response question from the survey and read and reread these noting key words and phrases and documenting possible themes. I applied a concordance software program, Simple Concordance©, to generate a frequency analysis of the words in the open response text, which served to verify the keyword and phrase analysis I had conducted manually. This software tool also supported me in creating a concordance among the responses using key words I had identified. Presentation of the responses in a concordance report facilitated

the analysis of emerging themes. Analyzing the survey data provided a context and direction for the subsequent focus group interviews.

Once the focus group interview recordings were transcribed, I read and reread the transcriptions noting keywords and emerging themes. I also maintained a reflective journal in which I recorded connections among pieces of data and documented apparent themes. Using the Simple Concordance© program, I generated word frequency lists and applied the KWIC (key word in context) method to prepare my text for additional analysis via coding. Prior to coding, I used Simple Concordance© to generate a concordance among the survey responses and both focus group transcriptions. From these data sets, I applied coding procedures to analyze the data to a point of saturation and to confirm the themes that had emerged. To facilitate the organization of my coding process, I used Microsoft Word tables that allowed me to sort and group my units and categories according to the themes that had emerged.

Site and Population

The student population of the district where I conducted my study is comprised of approximately 6,600 students in pre-kindergarten through twelfth grade; over 3,000 of those students attend seven elementary schools. Two middle schools serve students in 6^{th} through 8^{th} grades, and a single high school serves students in 9^{th} through 12^{th} grades. Sixteen percent of the school population meets free/reduced lunch guidelines, and minorities comprise thirteen percent of the student enrollment. Ten percent of students receive special education services. The district is growing at a rate of approximately 200 students per year, and enrollment is projected to total 7600 students within five years according to the district's comprehensive school improvement plan (CSIP).

In 2009-2010, 89.4% of fourth-graders scored above the 40th percentile according to national norms on the Iowa Tests of Basic Skills reading comprehension test. In that same year, 89.1% of 4th graders scored above the 40th percentile according to national norms on the Iowa Tests of Basic Skills in mathematics. The district's annual report to the community, available via the district's website, conveys the common mission of the district and the expectations for highly-qualified teachers, noting the number of staff nationally board certified and those with advanced degrees.

According to the district's CSIP, the district has been guided by the "Iowa Professional Development Model process to develop its District Career Development Plan and an action research design to guide conversations and assist making goal progress." Steps in this process include collecting and analyzing student achievement data, goal setting, selecting technical support, designing the professional development process, and ongoing data collection.

The CSIP indicates that as actions are developed to support each goal, implementation plans will be developed at the appropriate levels (e.g., elementary, middle school, and high school) to provide K-12 system alignment of efforts. The following findings are presented in light of this context and as a result of the data pertaining to the Iowa Professional Development Model and its components (See Appendix A) that I have gathered and analyzed.

IPDM? We're Somewhat Knowledgeable

In terms of basic knowledge about the Iowa Professional Development Model (IPDM), nearly 88% of the 129 elementary teachers who responded to the survey reported they had at least some knowledge of the IPDM. The survey was distributed to

240 certified elementary teachers across the seven elementary buildings; the 129 teachers who responded represent 53% of the total responses possible. Not surprisingly, the level of knowledge teachers claimed to have varied as indicated by both the survey research and the focus group interviews. Of the survey respondents, nearly 61% assessed themselves as *Somewhat Knowledgeable*; about 26% said they were *Knowledgeable*, but only 1% indicated they were *Very Knowledgeable*. Similar to the survey respondents, participants of one focus group seemed to bring varying levels of understanding of the IPDM to the interview; but through their discussion, they generated a collective, conceptual explanation. "I would say it's a broader thing," shared one participant, hesitating as she initially collected her thoughts. Responding to her, another teacher noted, "It reminds me of the scientific method—how you kind of have a process, but there's never really an end point." Another participant added the word continuum, and they all nodded when one respondent summarized their conversation, "Kind of a continuous process—if one thing doesn't work, maybe you can try new action research or try something different."

Educators in the second focus group expressed a similar uncertainty when processing their thinking around the IPDM. Making general references to "the model," "the newer model," and "it," they believed their professional learning communities (PLCs) would be helpful in making sense of the IPDM. "If you're intimidated by the model, you can…ask questions and learn from each other." Intrigued by the perception of the model as potentially "intimidating," I probed to learn more. What seemed to be intimidating was simply the uncertainty they were feeling about the model and the implications it has for their work. Approximately 12% of survey participants reported

they were *Not at all Knowledgeable* about the IPDM, and this was evident in the focus group interviews. As one focus group participant interviewee shared, “I don’t really know what the model’s supposed to be.”

Although teachers communicated varying degrees of familiarity with and understanding of the model, those who participated in the focus groups were united in their desire to learn more. “[Give] us a further understanding of it and what the expectations are for it. Given those expectations, what do we need to do in order to benefit our students, benefit the staff, the administration?” noted a grade level teacher. Another educator stated, “I think that we need to hear ‘This is what the IPDM is, this is where we’re moving as a district, and this is what we need you to do as professionals to help us build that model up.’”

Teachers Engage Highly in Collaboration and Self-reflection

Knowledge, or lack thereof, of the IPDM did not preclude teachers from participating in and responding to the individual components of the model. The extent of engagement with each component, however, was quite varied. Survey data indicated more teachers engage *Mostly* or to a *Great Extent* in the components of collaboration, self-reflection, and analysis of student achievement data than in any other component. The highest number of teachers, 97/128 reported engaging *Mostly* or to a *Great Extent* in collaboration. Focus group participants felt strongly about having time and opportunity to collaborate and contributed passionately to this part of the conversation. “The most that I grow professionally is talking with my teammates, and not only my teammates, but [grades above and below] me,” explained a focus group participant. Another teacher

responded similarly via survey, “I believe strongly that grade level team collaboration and reflection is the key to professional development.”

Interestingly, the word collaboration seemed to have multiple meanings attached to it. Grade level teachers conceived of collaboration in terms of team planning, but largely with regard to management. “We plan together. Order copies together, talk about upcoming events, schedule changes, and then any kind of things that we need to bring up.” Other educators, serving in specialized roles, described collaboration in terms of their experiences in working with grade level teachers to support students’ learning. Their conversation seemed to be more germane to consulting rather than collaborating, so I asked how they would explain the difference between the two. Collectively, they defined collaboration as “doing it together,” but noted, “a lot of times, people just want me to take their kids and fix it or take care of it.”

Both focus group participants and survey respondents attached collaboration to professional development. Focus group participants explained collaboration as professional development time used to analyze student work and reflect on their practice collectively, but noted that currently they analyze student work and reflect upon their practice in isolation from each other. Although they share common planning time, they save “that minute, that chunk of planning time to get caught up from the day, the go, go, go of the day.” Survey respondents conveyed a similar belief about what constitutes professional development. According to survey data, “Collaboration,” “working collaboratively with colleagues to share ideas about what’s working in their classrooms,” and “meeting with other professionals to find out the latest ideas on how to increase student achievement” constitute professional development. Teachers defined professional

development in terms of collaboration, but the mental models of collaboration varied among teachers.

Although teachers reported engaging at high levels with collaboration, self-reflection, and analysis of student achievement data, the survey data reflect a relatively lower level of engagement with the following components: study of theory (69/128), practice of skills (64/129), documentation of teacher implementation (61/128), viewing a demonstration (60/129), study and analysis of teacher implementation (43/129), peer coaching (35/129), and observation of another teacher's classroom (23/129) (See Cross-tabulation of Survey Data in Appendix D. The open responses from the survey and focus group interview data affirmed the findings from this component of the survey. One survey respondent noted, "What SHOULD (emphasis in original) constitute professional development is time to observe other teachers, time for peer coaching, team teaching to implement new instructional methods with a more experienced teacher." Echoing this response, another teacher noted, "Teachers should be involved in peer coaching and observing master teachers."

Interestingly, although both survey respondents and focus group respondents described and defined professional development in terms of learning, they did not report engaging in study of theory about learning and instruction at high levels. About 54% of survey respondents reported engaging *Mostly* or to a *Great Extent* in a study of theory about learning and instruction; but as shown in Table 1, the word or derivatives of the word *learning* occurred with the most frequency of all words, appearing 63 times in the open response text and 185 times within the text of the survey and the transcriptions of the focus groups combined. *Time* was the next most frequently occurring word, appearing

31 times. Teachers reported engaging more in collaboration (76%), but as shown in Table 1, that word or derivatives thereof appeared with about 30% less frequency than did the word *learning*.

Table 1

Key Word/Word Groups Frequency Table

Word	Grouping	Frequency in Survey Only	Frequency in Focus Groups and Survey
Learn	Learned, Learner, Learners, Learning	63	185
Time	Time	31	178
New	Newer, Newest	50	116
Collaborate	Collaborating, Collaboration, Collaboratively, Collaborative Collectively, Together	23	65
Implementation	Implement, Implementation, Implementing, Implemented	21	65
Better	Better, Bettering Improve/s, Improving, Improvement	31	46

Professional Development Is about our Learning

What we learn.

Teachers described professional development as an opportunity to experience new learning with the purpose of bettering their teaching for improvement of student learning and achievement. In fact the idea of new in relation to learning appeared in 116 references between the focus groups and the survey open responses (see Table 1). Professional development, posited multiple teachers, is "learning new techniques for effective teaching" and "staying up to date with new theories and studies." One teacher, expressing the sentiments of several, explained professional development as "learning new ways to teach your subject more effectively for the benefit of students."

Both survey and focus group participants discussed learning from book studies. Looking to make a connection between the IPDM component of selecting content and the content of the professional development experienced by these teachers, I inquired of the focus groups as to how the books were chosen. The responses were mixed. In one building, the principal identified three books from which the staff members could choose. In another building, the principal selected books "that he finds particularly interesting. And he tries to pick those that he feels will get a good response from all of us." Another teacher shared that in her building, the focus was on understanding the culture of poverty, so they had read a book about that topic and engaged in a simulation.

Probing further, I asked where data fit into the selection of books or content. In response, a teacher enthusiastically described how the principal in her building led a process through which teachers analyzed ITBS data and data from the Measures of Academic Progress assessment to identify low achieving students. From that data analysis, "our principal chose to use *Whatever It Takes* as the book" study. In terms of impact of the reading on practice or student achievement, one teacher noted, "I think your hope is that you take that information from the book and it directs some of your lesson planning and helps your students achieve. I don't know if there is a direct effect."

Reflecting on her learning as a result of her engagement in book studies, another staff member noted,

> I do learn a lot from reading these books and getting new ideas…but we started out really strong, but the by end, it kind of fizzled out and there was just that lack of follow through. Okay, you read the book, now what are you going to do with it? There was never an ending goal, I guess."

Not only do teachers expect to learn new and relevant strategies and approaches as a result of professional development, they also expect to refine and develop strategies and skills already in their repertoire. One educator articulated, "It [professional development] is an opportunity to extend my learning and fine tune my teaching skills."

Several teachers identified learning new technology as professional development that was identified at the district level; they referenced a specific day at the end of the school year that was devoted to learning in the area of technology, which aligns to the comprehensive school improvement goal of increased use of technology. One staff member described the impact of the technology professional development as "diversifying my teaching."

The content of professional development on district days also included the pillars for reading: phonics, phonemic awareness, reading comprehension, fluency, and vocabulary. Teachers explained how ITBS data were used to identify goals for reading and mathematics. They noted that study of the pillars of reading was designed to provide support for attaining the reading goals. Buildings selected goals related to the pillars and then grade levels and individual teachers identified goals related to the building goals.

As evidenced by the data, the content of professional development is multi-layered. A teacher concluded, "There's so much in everything that we've done." At the district level, professional development is focused in the areas of mathematics, reading, writing, and technology. On designated dates, teachers from across the district meet by grade level to study one of the designated district targets. Most recently, grade level teachers convened to continue their study of the Six Traits© of Writing.

On another district-designated date, the emphasis of the district professional development was continued study of the pillars of reading: phonics, phonemic awareness, reading comprehension, fluency, and vocabulary. One staff member described how, after studying the pillars of reading, she and her team were expected to create lessons around the pillars.

> Well, I know second grade came away from that and we decided, we kind of morphed it into our goals, our goal's fluency. So each month we're supposed to come up with a new fluency strategy, implement it, and then report back. Well, to be honest, we did it for three months, but, you know, it just got lost in the shuffle of things that we've got to get done. But, we did give it a shot.

At the building level, staff engage in book studies; and at an individual level, teachers engage in study of content related to the professional goals they identified in their individual career development plans. Teachers noted that although the learning is multi-layered, "they [administration] are trying to make it easier on us" by aligning the goals from one level to the next. One teacher praised leadership,

> They're [administration] taking it to the district level where these are our concerted effort goals, taking it into the building and then taking it on to the teams. So, there has been that alignment that has happened, which wasn't there before.

How we learn

Teachers identified multiple ways in which they learn. One powerful way in which teachers said they learned is through collaboration. "Meeting with other professionals who teach what I teach to discuss and learn new ideas, compare notes,

interact about what works well in the classroom" constitutes professional development from one teacher's perspective. A grade level teacher commented on the power of group learning for her,

> We are placed into learning groups for this book, and then we aren't assigned a chapter—we're supposed to read the whole book—but we're assigned a chapter to share out with the rest of the school. I've enjoyed that because when some of the teachers are presenting their chapters, they've talked about spots that I may have missed in my reading, and I've actually been implementing a lot from this book into my classroom this year.

One teacher described how organizing teacher teams with representation across grade levels and specials areas for the book study in her building rather than by grade level had made for "an interesting place to discuss what we've been reading about." As a specials area teacher, she noted how she had gained insight into the perspective of the grade level teachers and how they had broadened their thinking in terms of what they might expect of students.

Teachers also valued learning from experts within their groups. One teacher explained how having a grade level peer modeling technology helped implementation of that technology seem as though "Oh, I could do this or I can use this." A survey respondent articulated, "We can learn so much from our co-workers but oftentimes sit in meetings all day, and we don't have the time to learn from each other."

In addition to learning via collaboration, some teachers identified reflection as another process through which they learned. A focus group participant noted that during time designated for professional development, she spends time reflecting on her

individual professional development goals and through journaling, identifies what she has learned and where she needs to continue to grow. She shared her thinking,

> A lot of times it's really easy to get caught up in the day to day things and you don't take that much time to reflect on it [your teaching]. During a professional development day like this, we spend time looking at our goals and seeing the progress that has been made or if we needed to change things.

Another focus group interviewee discussed the nature of her reflective practice with a heavy sigh,

> But, what guides it [my learning], I guess, is the need for my students. And, this being a really challenging year in terms of lesson planning for me, I do a lot of self-reflection after a day. I plan for the week, but I go back and it's like the objective didn't come across okay. They didn't learn quotation marks the start or whatever it may be, and I go back and I do a lot of re-teaching this year, which is taking a lot of time; but, quite honestly, with the group that I have, it's just a lot of self-reflection on my part and building a lesson or using their information to guide my next lesson so that I know that I can be successful.

Curious as to whether this teacher engaged her grade level colleagues in reflective practice, I probed to learn more. She bemoaned the fact that she reflected mostly alone because the focus of their grade level meetings had been mostly around planning and other issues. However, she celebrated "a special ed teacher that I work like hand in a glove with, and we kind of bounce ideas back and forth. And that's been tremendous."

Survey data also indicated that 72% (93/129) of staff engage in self-reflection about their teaching. One survey respondent described professional development as "Any

learning that takes place through…reflection that pertains to my learning a new skill, a new way to do things or enhance my understanding of what I am doing in the classroom and with students and peers." Several other survey respondents identified reflection as a means by which they learn.

Focus group participants and survey respondents alike linked their learning to goal setting. A specials area teacher explained, "So, we did a lot of goal writing this year. Our PLCs each have a goal, our team has a goal, and individually we have a goal. So we're kind of responsible in a sense for three goals." Teachers in the focus groups discussed how goal setting helped them to think about where they needed to target their learning; they agreed that student needs directed their goal setting. Although the district expectation is that all teachers engage in goal setting, focus group participants indicated that sometimes teachers lose sight of the goals amidst the competing demands that arise over the course of the school year. A teacher shared,

> That's something that I personally need to get better at is looking at those [goals] too, because I know what my goal is, but sometimes, you know, I start really strong, and then other things happen, like we need to get stuff in for report cards or this assessment, this IEP is due, this and that. And so, you kind of prioritize and sometimes that, not that it's not a priority, but other things kind of sneak up on the list ahead of it.

Participants in the focus groups described goal setting both from an individual career development plan perspective and from a grade level perspective. A teacher from the focus group shared, "One of my personal professional goals coming right out of college was that I wanted to teach writing, no matter what because I always felt like that

was something that was completely overlooked." As a result of her goal, this teacher pursued training and learning in writing and became a district level trainer. Teachers in both focus groups attributed Teacher Quality funds with providing them additional opportunities to support their learning goals.

Though not identified as a predominant means of learning, two survey respondents indicated in their open responses that observing master teachers should be a component of their professional learning experience. Focus group participants indicated that being able to observe a strategy or approach work in another classroom would cause them to try to implement a strategy or approach that they might not otherwise try or that they had previously tried unsuccessfully. Teachers in both focus groups said that elementary schedules limit their opportunities to visit each other's classrooms. They cited a discrepancy between elementary and high school schedules in terms of planning time and claimed the high school teachers have more time to plan, and therefore, more time to observe each other.

Additional survey data indicated that 40% of teachers had not observed another teacher. Of the 52 respondents from the specials category, 34 reported having engaged in observation of another teacher's classroom at least *Somewhat*. This accounts for nearly half of all teachers who indicated they had observed in another teacher's classroom. One support teacher noted,

> From an observational standpoint, you could see the same strategy that was taught in this professional development day or this activity. And, you can see how different teachers, even the same grade level, same curriculum, implement just a little differently.

It's about Time…

Loudly and passionately, teachers clamored about time. Between the focus groups and the open responses, the word *time* appeared 178 times (See Table 1), second only to *collaborate* and its derivatives and inflected forms which appeared 185 times. Time was described as both a resource and a barrier. Time was also referenced relative to timing and schedules. Some teachers conceived of professional development only in terms of time.

Teachers viewed time as a resource to support their collaboration, but noted that the current allotment of time for collaboration is insufficient. One specials areas teacher explained that she and her colleagues convene only on district-wide full days of professional development. Because of the capacity now available through Skype as well as email and phone, I probed to see if perhaps they were collaborating more than they realized, even it if were not person-to-person. Laughing, the teacher said, "Lots of phone calls. Lots of emails. But, it's harder for us to get together when we're all across the district. I don't even know if we teach the same stuff."

In response, another specials area teacher replied, "Because we don't get to see each other very often."

"The time factor." I stated. All participants of the focus group affirmed.

Another teacher bemoaned not "having the time to share." Her colleague noted that "the professional development day is completely planned out, almost to the minute. And it's lacking any opportunity for teams to actually meet and discuss." Affirming her peer, another teacher expressed,

> We get so much thrown at us at our meetings, but we have no time to discuss in the classroom with our team members, and I think the most I grow professionally is talking with my teammates and not only my teammates but [teachers who teach grades above and below mine].

Teachers clearly desired more time for "sharing out among" each other. One teacher's professional development wish was "more being able to actually talk with your other teammates and be given more time." In identifying a need for more time for collaboration, teachers also recognized a need for parameters to guide their time together. They acknowledged a need for focus and accountability so that people maximize their time together.

Not only was time cited as a necessity to support collaboration, time also was identified as both a resource and barrier to implementation of new learning. A survey respondent explained that professional development needed to include "having time to plan and talk about ways to implement newly learned strategies." Another survey respondent replied, "I wish there would be time to practice new skills so I would feel comfortable and want to use the new information."

Some staff members were comfortable with the time allotted for exposure to new ideas, but required more time for full implementation, "Often times we get the new ideas and sometimes have time to plan how to use it and little time to analyze what we have implemented." Another teacher noted, "We often spend all our time on the theory and are left to our own to try and implement it." Teachers expressed a concern about the number of new ideas to which they were exposed absent time to process and apply their learning.

Teachers also distinguished instructional time as both a resource and a barrier. One focus group discussed that sometimes what they learn in professional development does not match the needs of some of their students. Consequently, teachers identify strategies and approaches they believe will meet those needs and use instructional time to implement those strategies and approaches. As we processed how teachers respond when a strategy does not seem to work for some students, teachers explained that pressure to move through the curriculum in order for students to be prepared for assessments causes them to let a new strategy "fall by the wayside." One teacher lamented,

> The kids have to do these tests and we talk about, 'okay, what do they need to do for math' and then you turn around, and before you can implement it, you have to figure out the reading piece…Is there time to implement it before you turn around and have to do the whole process over again or focus on a different area for that.

Additionally, competing needs surfaced as a thief of time. Teachers expressed frustration with the number of duties and committees that consume their time. "Inadvertently, I get meetings planned for me during my lunch, during my prep time," noted one teacher as others nodded their heads in agreement. "We're in meetings a lot during our prep times," empathized another staff member. Teachers recognized the need for special education meetings and problem-solving meetings, but conceded that such meetings mean less time for grade-level collaboration.

Teachers discussed the time involved in committee work. "We've got these four different committees that are constantly in motion," articulated a teacher leader. A colleague shared, "All the committees that have been brought onto us this year have just added more stress because of the added responsibility [in terms of assessing that had

previously been done by the area education agency] that we've had to take on as well." However, both focus groups credited the committees with bringing forth new strategies and ideas. Although they valued the work of the committees, teachers still expressed concern about lack of time to monitor implementation of the initiatives introduced by the committees. One teacher described the limits on time for committees to accomplish their assigned tasks,

> This committee was given a limited amount of time to plan everything, get everything organized, get everything ordered, make sure that it was in place so that "Hey, next week, we're going to start this." So, they were kind of under the gun, too. They didn't have time to, like a good stew, they didn't get a chance to let it simmer and all the flavors come out. It was just, there it is.

Additionally, teachers identified time as a resource that could facilitate movement toward a more unified curriculum, common language, and shared instructional strategies that would help address a need they see for a more systemic approach to their work. One staff member queried, "How can we make that [what is working well at a grade level] a system that will impact all students across the board? I think that's the piece that's missing right now."

One teacher admitted to having struggled in the absence of common expectations. "I really struggled and this year, I think it's getting better, but that's just because I'm getting a little more familiar with it. But, I still feel like I'm lacking that guidance and what should some of these lessons look like?" she explained. Another teacher shared her experience having taught in two different buildings. She noted that the expectations were "so different." Both focus groups indicated that time would provide an opportunity to

develop a shared vision for implementation of curriculum and articulation of common expectations. Though discrepancies exist among buildings, teachers credited the curriculum staff with striving to "clean up messes, tie up loose ends, and bring us all together," but again explained that time is necessary to systematize the work.

In addition to a systemic approach to curriculum, the specials teachers pointed to a need for a common vision for how students are served. The focus group comprised of special teachers explained that sometimes general education teachers expect support teachers to serve the needs of special education students, for example, when those needs might be best served by the general education teacher. This group identified a need for teachers to cultivate a "common mind set." One teacher posited, "I guess professional development could be used to kind of get teachers to have that common mind set."

Timing of professional development days sparked animated conversations. "Sometimes I feel like professional development days are all boom, boom, boom, boom, boom, and then there's none for a long time," stated a staff member. Another teacher shared an insightful suggestion for scheduling and supporting professional development,

> I'd like to see professional development done like how we're expected to teach our students. We don't give our students all of these ideas and all these things and don't give them time to complete the activity or to finish it up.

This recommendation was received with support from her colleagues who chimed in with "How we're expected to teach. Yeah."

Other staff members also reflected on the placement and timing of professional development days. One teacher expressed dissatisfaction with the placement of a professional development day on the last day of school, "It's not useful. On June 5th, I'm

not going to be in my classroom for another two months; it's not useful to be talking about reading strategies."

Teachers from both focus groups commented on the placement of the technology day on the last day of school. One teacher explained,

> We had our tech day, which was great; I actually got a lot out of it. But it was the day after school got out, and I'm now going on break until August. If we could have had that day at the beginning of the year, I would have been able to implement a lot more because I would have remembered what I did.

Another teacher expressed similar sentiments, "We had technology day around the end of the year… everybody came back super pumped up and excited with these ideas, and you could only implement them for a short amount of time."

Implementation and Impact

Implementation of what was learned in professional development "varie[d] from grade level to grade level and it varie[d] from team to team." The complexity of the task or strategy that was being learned also influenced implementation. "Implementation depends on the individual," contended one teacher. Another teacher explained,

> From an observational standpoint, you could see the same strategy that was taught in this professional development day or this activity. And, you can see how different teachers, even the same grade level, same curriculum, implement just a little differently.

A specials teacher, who in her role has the opportunity to observe multiple teachers across multiple grade levels, noted,

> I think sometimes teachers have a knack to maybe impact a certain group with the way that they implement things. Not always across the board, but I think a lot of times, like it just kind of depends on the individual teacher. So, sometimes it [the strategy] is a little more effective in one setting than it might be with another.

I was particularly interested in learning more about how teachers account for the variances in implementation, so I probed for more information. One teacher responded,

> I think part of it could be personality, but a lot of it can also be how much time and effort they've taken to really think about that strategy and process and wanting to implement it. The planning that goes into it does impact it as well. That's not to say some teachers try harder than others; it's just that some teachers do take a lot of time to plan that strategy. And other times teachers might implement a strategy, but they might not put that much effort into it because they have to put those efforts elsewhere.

The complexity of the learning task seemed to impact implementation. One teacher described how in her building they had engaged in some learning around "using every minute and not having down time." She observed how teachers had had students practice math facts while waiting in line for lunch. "Just little things like I thought, 'Wow! That really did make a difference.'" Similarly, in another building, a teacher explained how as a result of their book study, some teachers were implementing "little tips like that [appear] throughout the book." In both instances, the complexity of the task seemed to influence teachers' comfort level in implementing that task. One teacher directly acknowledged the issue of complexity, "It depends on how intricate or intense the strategy is if I want to try it out cold turkey."

When a task seemed more complex or challenging, one teacher expressed her preference for more support in order to implement,

> To get the opportunity to be hands on with it [a strategy] and I like to have another person there with me at the beginning to walk me through it. It's not needed all the time. It just depends on what the thing is you are learning. If it's something that I am not too strong in, then I definitely like that additional support.

When we discussed the impact on their teaching and on student achievement of what they had learned and implemented through professional development, teachers discussed the development of a common language in terms of their writing training. They described how kids are familiar with the language and teachers can build upon what students already know. Rather than identify an immediate outcome in terms of the impact on student achievement, one teacher shared, "I think the exciting thing will be when they get to middle school. How good our writers are versus where we used to be." In response, however, another teacher noted, "I've seen a huge difference this year." The group described the common rubrics that they have implemented in kindergarten through second grades and another for third through eighth grades, and indicated this continuum of scoring guides would help systematize their work.

Beyond the common language and rubrics established via the district writing initiative, teachers expressed a need for more accountability and follow through to ensure that strategies and approaches learned in professional development were being implemented. Teachers described how they had begun their book studies with enthusiasm, but that "by the end, it kind of fizzled out and there was just that lack of follow through—like you read the book, now what are you going to do with it? There

was never an ending goal." A specials area teacher noted, "Sometimes I feel like we talk about the stuff in the book, but then we don't do it." Another teacher suggested, "If we're going to invest the time in presenting the book and reading the book, I'd kind of like some follow through on it."

Another staff member paralleled expectations for professional development with her teaching, "There's always a follow through for how we assess the kids, so that's just like they [administration] should be doing for us as well." One teacher shared, "Some people do need that accountability piece hanging over their head. 'Well someone is going to follow up on me. Someone is going to check in on this.'" A survey respondent said, Professional development should consist of…accountability to ensure that new learning is implemented with integrity." Teachers did not seem to engage in the component of monitoring and evaluation identified in the Iowa Professional Development Model to the extent they engaged in other components.

Leadership: Valued and Essential

Teachers valued leadership and the efforts of administration to systematize their work. Teachers referred to the alignment of goals from the individual career development plan to the grade level, building, and district goals. They viewed this as streamlining their work while moving toward a more systematic approach to curriculum, instruction, and assessment.

From the conversation regarding implementation that occurred in both focus groups emerged a belief in the need for expectations that are accompanied by follow-through. The responsibility for following through to ensure that "we are doing right what is asked" was linked to leadership. Teachers held beliefs that leadership should establish

expectations for implementation and that these expectations should be clearly articulated to staff members. In describing her experience in implementing curriculum, one teacher stated,

> People are picking and choosing what they want to teach. I mean, we know we have to teach Scholastic, we have to teach math, but yet, what are you teaching in that curriculum? Are you omitting five units that you need to be doing because you don't think that that's what is going to be captured on the end of the year test? It's all over the board.

Other participants in the focus group affirmed this teacher's opinion, and the specials areas teachers also noted that they do not necessarily teach the same content and skills as their counterparts in other buildings.

Speaking to her vision for expectations and follow through, one teacher recalled that in a previous district she had been expected to bring student artifacts to professional development to document her implementation of the strategy she had learned. She explained, "Whenever we would talk about a strategy or something, they always wanted you to make a copy of a student's paper." Within their current context, teachers explained that for a particular professional development session, they were expected to bring students' written work that they had graded because they would be expected to work in grade level teams in an effort to develop a common understanding of the scoring descriptors on the rubrics. On district professional development days, expectations seemed to be clear, but more discrepancies were apparent when teachers described expectations at the building level.

For teachers to be more cohesive in their delivery of curriculum and implementation of strategies, focus group participants and survey respondents alike noted that they would need more time and support. Focus group interviewees identified leadership as the key to helping prioritize their work and provide critical resources. Both focus groups mentioned committee work in terms of the demands on their time. In exasperation and with exaggeration, one teacher exclaimed, "I'm on 65 committees!" Teachers named a number of committees and teams that are present in the district including the mathematics, literacy, technology, and social and emotional committees and the building leadership team, lead leadership team, and instructional decision making team.

Focus group participants questioned the efficacy of the committee structure. One participant explained,

> Because all of our committees have multiple leaders; and, with having those multiple leaders, one thinks somebody else is getting something done. And nobody is getting anything done because they're all saying "No, you're doing it." I think that the role of the leadership is to say "I need you to be the leader of this committee and I'm going to be meeting with you on this day." And, some of that, that load needs to be taken off the actual classroom teacher, who is a member of the committee, so that that leader can just get things done and then revise it and bring it back and have that back and forth going on.

Additionally, teachers shared that as questions or issues arise in their building, principals establish committees to address them. Although teachers appreciated the opportunity to be involved, they felt as though the implementation of so many

committees was sometimes “passing the buck” when they would prefer that leadership make a decision. One teacher explained rather than “form another committee.’ At some point there is that point where the leadership, district or building wide, needs to say, ‘Hey, this is going to be our guideline.’”

Interviewees also raised the question of efficacy in terms of these additional committees that had been formed in response to questions and concerns. One teacher noted, “We formed a committee and we met once, one time. We never met again, and there was no follow through with that.”

In response, another teacher agreed, “It was brought up again this year that we’re still having the same problems, and we have never met this year.” Participants shared that so many committees resulted in too much to manage; consequently, some of the committee work, while consuming valuable time, had not produced results. On the other hand, teachers offered the mathematics committee as an example of a productive committee; however, they noted that the approach to address computation identified by the committee needed to include the means by which implementation would be monitored and evaluated. Teachers of the focus group wanted to have leadership establish parameters and take “ownership” of the guidelines that would facilitate their work. Although teachers wanted to have a voice, the examples offered by teacher interviewees would suggest that in areas that were essentially management, teachers would prefer that leadership make the decision.

As teachers explored ways in which the IPDM might be more fully implemented, they described a process through which administrators support the “bubbling up” of ideas from “the bottom” as opposed to the “dictating” of strategies and approaches from “the

top." Seeking clarity around the concept of "bubbling up," as it initially appeared contradictory to what teachers were wanting in terms of less committee work, I probed their thinking about what this might look like. One teacher offered an example, "They're [administration] telling us 'Here are your pillars, make some lesson plans for this' instead of asking us 'What are you doing?'" Another teacher explained, "And that allows us to use something." The essence of the story that evolved around "bubbling up" was that teachers wanted their knowledge and experience to be honored. They wanted latitude to make instructional decisions within a framework. However, at the same time, teachers noted that not all teachers have the "background or training to do a guided reading lesson effectively or they're doing it in a way that's not really guided reading."

Interestingly, the goal-setting in which teachers engaged as a part of their individual career development plans provided them the opportunity to direct their own learning. Additionally, as teachers set their grade level goals at the building, they had the latitude to direct their learning. As one teacher shared, "Each month we're supposed to come up with a new fluency strategy, implement it, and then report back." This teacher noted how interesting it was to research fluency and to identify additional techniques that they could use to build students' fluency. In terms of having a voice, another teacher, commenting on her experience in piloting a mathematics series, felt her thoughts and experience with the new program were greatly valued, "They really cared about what I felt about it, how I felt it was working, and I felt like my opinion mattered and that was a good feeling." Nevertheless, teachers expressed a desire for a stronger voice in the district-level professional development design.

As the findings have indicated, teachers' participation in and response to the Iowa Professional Development Model (IPDM) varied. Teachers reported engaging to a greater extent in collaboration and reflection than in the other components of professional development. Additionally, participants engaged highly in the planning component of goal setting. Underscoring multiple responses was the issue of time; teachers communicated a clear need for additional time to support not only their work in school improvement but also the day-to-day tasks of managing a classroom. Overall, these findings revealed that teachers desire to know more about the IPDM and its implications for their work, and they look to leadership to provide them the opportunity to learn.

Chapter 5

Conclusions

Introduction

In response to the Teacher Performance, Compensation, and Career Development legislation (2001), various stakeholders, including the Iowa Department of Education, area education agencies, the Iowa State Education Association, School Administrators of Iowa, the Iowa Association of School Boards, and experts in the field of professional development, partnered to create the Iowa Professional Development Model (IPDM). This model was intended to support Iowa schools in operationalizing the expectations for professional development articulated in the legislation (2001). The intent of this study was to examine elementary teachers' perception of their implementation of the IPDM and to explore how implementation of the model varies among teachers. Three overarching questions guided this inquiry: (a) What do elementary teachers know about the Iowa Professional Development Model and its implications for their teaching and learning? (b) How do elementary teachers respond to and participate in the implementation of the Iowa Professional Development Model? (c) Does response and participation vary among teachers?

Participants in the study included a sample of elementary teachers, kindergarten through 5th grade, from an Iowa school district enrolling approximately 6600 students, 3000 of those students who attend seven elementary schools within the district. Theoretically, I followed the naturalistic approach as this qualitative methodology aligned to the spirit and intent of my inquiry. Utilizing an online survey, I collected data regarding teachers' knowledge of the IPDM and the extent to which they engaged in the

components of professional development as identified in the IPDM (See Appendix A). I also gathered demographic data from the survey. Data from the survey were used to identify participants for participation in focus groups. The twelve teachers, who via the survey indicated knowledge of the IPDM and a willingness to engage in a focus group interview, were invited to participate. Two focus groups were conducted, one with representation from multiple grade levels and the other with representation from the specialized areas like special education, for example.

My findings are the result of analysis of the survey data, focus group transcriptions, and district documents including the comprehensive school improvement plan and building goal data. Five primary themes emerged from the data: a) Combinations of the components of the IPDM were experienced to varying degrees, b) Professional development was about teachers' learning, c) Time was identified as both a resource and a barrier, d) Implementation and impact of the IPDM varied, and e) Leadership was valued and essential.

Teachers engaged with and participated in the components of the IPDM to varying degrees. For example, the greatest engagement with the IPDM occurred in the area of collaboration and self-reflection. Although teachers reported engaging to a greater extent with collaboration, how teachers conceived of collaboration varied. On the other hand, few teachers engaged in observation of another classroom. In terms of knowing and understanding the IPDM, teachers reported being familiar with the IPDM, but focus group data revealed teachers have an abstract, general conception of the IPDM.

Professional development, as understood and articulated by teachers, is clearly about teacher learning of new strategies, ideas, and approaches. Although the book study

was a predominant means by which teachers reported learning, they also identified multiple other ways in which they learn. What teachers learned was consistent from the district level, but varied at the building level; and the degree to which teachers learned a concept, skill, or strategy varied by teacher. Content at the district level was selected based upon district data; content selected at the building level varied by building.

Time, from the teachers' perspective, clearly impacted professional development and implementation. Teachers cited time, or lack thereof, as a barrier to collaboration, systematization, and implementation. Though teachers engaged in collaboration, they indicated more time would afford them opportunities to engage in practice of newly learned skills, another component of the IPDM. Timing of learning opportunities also influenced acquisition of concepts, skills, and strategies as well as implementation of that learning. Absent time and opportunity to practice more complex strategies and tasks between professional development sessions, teachers were less likely to implement.

Implementation of concepts, skills, and strategies learned in professional development varied from teacher to teacher. Variation depended for some on the complexity of the task. When the learning was more routine in nature, or less complex, teachers were more likely to implement. When the task was more complex, teachers were less likely to implement absent more support in terms of modeling, practice, and feedback. For others, variation was attributed to lack of accountability. Plans for monitoring and evaluating the effectiveness of professional development were not obvious to teachers who responded.

Leadership was valued for their efforts to systematize and streamline the work of the teachers. Teachers depend on leadership to provide necessary resources, set

parameters for their work, provide clear expectations, and follow through by holding staff accountable for their learning and implementation of that learning. Teachers appreciated opportunities to work collaboratively with leadership to make decisions regarding professional development, but expected leadership to make management-related decisions in order to move forward most effectively and efficiently.

Discussion

IPDM? We're somewhat knowledgeable

As depicted in the survey results, a majority of teachers indicated at least some knowledge of the Iowa Professional Development Model (IPDM). Specific to the focus groups, teachers' knowledge might better be described as a general, abstract sort of understanding. This is not to say that teachers had not been engaging with the components of the model; quite the opposite was true. Teachers engaged with the components, but absent an awareness of how those components fit within a broader process, namely the IPDM.

Although teachers described ways in which they had engaged in learning, reflecting, and collaboration, for example; they did so without incorporating the lexicon of the IPDM. Their experiences did not appear grounded in the model. Teachers seemed to view a professional development day or a meeting during which they analyzed data as an event in time as opposed to seeing it as a component in a bigger picture or process of school improvement like that portrayed by the IPDM. This professional development experience is reflective of Elmore's (2004) research:

> Most schools organize formal professional development around specified days…so that professional development becomes associated with a specific

> number of discrete days disconnected from any focused strategy to equip teachers with the knowledge and skill they need to improve student learning (p. 100).

Because it has district-wide applicability, the IPDM offers a broader, systemic view of school improvement (Guskey, 2000). By communicating this view, this model, districts can build teachers' understanding and commitment (Loucks-Horsley, 2003). Elmore (2004) compels us to explain the model of professional development to those who participate. A model provides a rationale, and a rationale is "necessary for an understanding of the concepts behind a skill or strategy and the principles that govern its use" (Joyce & Showers, 2002, p. 73). Although Joyce and Showers were referring to skills and strategies, the explanation is germane to the concept of a model as well. For teachers to understand the concepts of professional development and school improvement, they need to understand the model and the research that grounds it.

As theory is to research, so is the model to school improvement and professional development. Theory in research should function to provide historical context, cohesion, and a common language through which researchers and their audience alike can come to a shared understanding of the work. Similarly, a model provides a context for the work of school improvement and professional development. Furthermore, a model provides cohesion. Program coherence is a key component in effective professional development (Elmore, 2004; Garet et al., 2001; Guskey, 2000; King & Newmann, 2000; Loucks-Horsley et al., 2003; Senge, 2006). A model also offers a lexicon to support communication for a more systemic approach to school improvement (Senge, 2006).

Joyce and Calhoun (2010) support the use of a model in providing the means to organize and structure teacher and administrator learning. In fact, a model that considers

both district-wide and building-specific approaches, contended Guskey (2000), "can optimize the potential benefits of each and drastically improve both the efficiency and effectiveness of professional development practices" (p. 31). Furthermore, a model gives a process to efforts to improve the effectiveness of professional development while providing for a means to evaluate its efficacy (Guskey & Sparks, 2002).

A former English teacher, I am reminded of a comparison related to parts of speech and other grammatical structures. Many students could write, for example, without distinguishing a clause from a phrase; however, the greater a student's facility with the lexicon of English grammar and usage, the deeper that student's understanding of how to write well. Similarly, the more a teacher understands the IPDM, perhaps the deeper that teacher's understanding of the school improvement process.

Teachers engage in highly in collaboration and self-reflection.

Data indicated that only 3 of 128 survey respondents do not engage in collaboration. Nearly 98% of staff reported engaging at least somewhat in collaboration, data that were supported by the focus group interviews. What this means is that lack of clear understanding and knowledge about the IPDM does not preclude teachers from engaging in the components of the model or in combinations of components. As evidenced by the data, teachers see value in collaboration, which may explain why such high numbers of teachers report collaborating with their colleagues. For example, teachers expressed a desire for more collaboration time in order to problem-solve concerns about students, unify their approach to curriculum, generate lesson plans, and analyze student data. One teacher identified the key to professional development as collaborating with and learning from peers.

According to research, teachers learn by doing, reading, reflecting, and collaborating with other teachers (Darling-Hammond, & McLaughlin, 1995), so these results do not come as a surprise. King and Newmann (2000) explained, "Teacher learning is most likely when teachers collaborate with professional peers both within and outside of their schools" (p. 576). The purpose of the professional learning community is "to learn from one another's repertoires, study student learning, and build their stock of professional tools" (Joyce & Calhoun, 2010, p. 63). Loucks-Horsley et al. (2003) explained, "Collaborative structures are designed around a group of individuals working together toward a common learning goal" (p. 138).

Although teachers reported high levels of engagement in collaboration, the fact that buildings hold expectations for grade level teams to meet once per week also influenced teachers' participation in collaboration. However, expecting teachers to meet does not necessarily result in true collaboration (Elmore, 2004; Joyce, Wolf, & Calhoun, 1993). This was apparent when teachers shared that the content of their grade level meetings was focused largely on management issues like scheduling, copying, and planning—not necessarily lesson planning. Data indicated that teachers held individual mental models of collaboration; they did not espouse a shared vision for their collaborative work. As Reeves (2009) noted, "Collaboration can take many forms; however, every collaboration meeting must have defined results with specific and measureable adult actions" (p. 47). According to Loucks-Horsley et al. (2003) the purpose of collaboration must be to improve student learning.

What might explain the discrepancy among teachers' mental models of collaboration is the historical context of teachers' work and the relatively new movement

toward professional learning communities (DuFour & Eaker, 1998). Historically, the work of teachers has been largely autonomous (Darling-Hammond et al., 2009; Guskey, 2000; Joyce, Wolf, & Calhoun, 1993). Furthermore, Richardson (2003) argued that the American culture of individualism affirms individual autonomy. Consequently, moving toward a more collaborative approach to teaching, learning, and school improvement will require "a clear vision of what a learning community looks like and how people operate within it" (DuFour & Eaker, 1998, p. 25).

In addition to engaging highly in collaboration, teachers reported high participation in self-reflection. For example, teachers reflected over the progress students had made toward their goals and then shared their thinking in their journals as a means of monitoring the student achievement goals they had set for their students. Teachers explained that they were provided specific time during designated professional development days to reflect on their teaching via journaling. Furthermore, teachers understood clearly what the expectations for reflection and journaling were. These structures and expectations help to explain the successful implementation of the component of self-reflection.

Research supports reflection as a key component of quality professional development (Loucks-Horsley et al., 2003). Teachers need opportunities to reflect critically on their practice and make adjustments based upon what they have learned (Darling-Hammond & McLaughlin, 1995; Joyce & Showers, 2002). Documenting these reflections through journal writing supports teachers in monitoring their progress and is recognized as a research-based strategy supporting individual teacher learning (Langer & Colton, 1994). When the time for professional development activities, including

reflection and journaling, is job-embedded, the more likely professional development is to impact student achievement (Cohen & Hill, 2001).

Professional Development Is about Our Learning

What we learn.

Teachers reported engaging in multiple learning opportunities. District, building, and individual professional development goals directed these learning opportunities. Content at the district level aligned to the goals of the comprehensive school improvement plan (CSIP). In reading, teachers explained that they were studying the five pillars; and in mathematics, participants described how the mathematics committee in one building used data from the Iowa Tests of Basic Skills computation subtest to drive their learning around more effective ways to support students in acquiring basic math facts. Additionally, teachers discussed how they had participated in a professional development day geared toward technology. Teachers also described the Six Traits© writing initiative being implemented across the district.

How content was selected at the building level varied by building, but book studies were predominant across all elementary buildings. Teachers reported engaging in book studies in different ways; the expectations in one building were for groups of teaches to present a chapter, and in another building the principal was primarily responsible for facilitating the study. Participants were enthusiastic about what they were learning from their books, but admitted that they were uncertain with regard to expectations for implementation of what they were learning.

Joyce and Showers (2002) claimed, “Selecting the content of staff development is one of the most critical decisions in the school improvement process” (p. 59). This

content needs to be aligned to student achievement goals and based upon the identified, prioritized needs of the district (Joyce & Showers, 2002; Darling-Hammond, et al., 2009). Within the IPDM, the selection of content is one step in a planning process of selecting content, identifying a professional development provider, and creating a training plan. Teacher leadership teams need to be engaged in the process of selecting content. The technical guide (State of Iowa, 2009) to the IPDM directs administrators and professional development leadership teams to "articulate clearly what the faculty will study, why this program/model/strategy was selected, and what student outcomes will be accomplished" (p. 41) and to communicate this information to faculty as well as parents and community members.

Although the content of professional development, as described to me by the participants of the study, aligned to the CSIP goals, it did not appear as though a consistent, clearly articulated process had been followed in selecting content at the building level based upon teachers' descriptions of how the books were chosen for their book studies. At the same time, to determine an approach for improved teaching of computation at one building, a committee of teachers engaged in a process of data analysis and selection of an approach; however, this team may have opted for a different focus or a different strategy had they engaged fully in the process articulated in the IPDM. They may have identified mathematical problem-solving or data analysis and interpretation as a greater point of leverage in increasing student achievement as a result of incorporating the components of the IPDM. Joyce and Showers (2002) recommended replicating the district-level process of identifying content at the building level in order to ensure every opportunity to influence student achievement positively.

How we learn.

Teachers described learning from their peers both in grade level meetings and through experiences with teacher leaders who had been trained to provide professional development on district designated days. Representative teachers were members of different district committees that assumed responsibility for studying and then providing training in the targeted areas aligned to the CSIP goals. Teachers spoke in most detail about the book studies in which they engaged at the building level.

Research has revealed the challenges of providing sufficient support from the district level to meet the learning needs of the diversity extant among a district's entire staff (Guskey, 2000; Huberman & Miles, 1984). Joyce and Showers (2002) identified two reasons for this struggle: a) educators underestimate the amount and type of study necessary for people to learn and implement new practices and procedures, and b) narrowing the focus amidst a number of competing needs at the district level becomes overwhelming, which explains why many districts have numerous initiatives underway at any given time. Richardson (2003) explained that developing the capacity of professional development providers or trainers also presents a barrier in terms of providing district-level support. However, a systemic approach inclusive of both district and building needs is critical to school improvement (Guskey, 2000; Joyce & Showers, 2002).

By organizing into leadership teams and structuring committees to provide on-site support at the building level, this district has strived to meet the demands of district-wide, or in this case, elementary-wide diversity of needs. The primary focus seems to be on the pillars of reading, but teachers are also engaged in a study of the Six Traits©. These focus areas in addition to the changes that came about as a result of the work of the

mathematics committee and the attention to technology caused teachers to feel a lack of focus. Although the concerns about a sufficiently narrow focus at the district level align to the research of Joyce and Showers (2002), I can appreciate the efforts of this district to support the goal areas of reading, mathematics, science, technology, and safe and drug free schools as required by the CSIP.

At the building level, teachers identified the book study as a way in which they learn. In terms of a research base, the book study activity approaches the study group activity, but fails to stand alone as a type of professional development. The study group, considered by Garet (2001) to be a reform-type activity, has gained the support of professional development researchers because these reform-type activities may be more responsive to how teachers learn (Ball, 1996; Darling-Hammond & McLaughlin, 1995) when compared to the traditional workshop or conference. This may be one reason why teachers addressed their experience in the book study with the most detail; it fit more with their individual learning needs. What participants indicated was missing were a clear focus for their learning outcomes and outcomes for students as well as expectations for implementation of their learning. With these criteria present, the book study activity would more closely align to the intent, purpose, and function of a study group. The study group approach "brings focus and coherence to improvement efforts if groups are carefully structured, well-trained, and well supervised" (Guskey, 2000, p. 25).

It's about time…

Overwhelmingly, data from the findings revealed a need for more time to engage in professional development. Explaining how management needs consume most of their meetings, focus group participants shared that they need more time for collaboration

around teaching and learning. Teachers responding to both the survey and focus groups expressed that more time embedded in the school day designated for collaboration would be a critical component to their professional development. This additional time for collaboration, they stated, would also provide opportunities to systematize their approach to curriculum, instruction, and assessment. More time, noted participants, would support them in engaging in practice of skills and, subsequently, developing a comfort level with new strategies and approaches such that they would be more likely to implement.

Professional development research abounds with references to the significant commitment of time necessary for effective professional development (Darling-Hammond, et al., 2009; Elmore, 2004; Garet, et al., 2001; Guskey, 2000; Joyce & Showers, 2002). Darling-Hammond et al. (2009) found that American teachers spend more time teaching and have "significantly less time to plan and learn together…than teachers in other nations" (p. 6). Therefore, the plea of the teachers in this study for more time echoes that of researchers who have studied the components of effective professional development.

The scheduling of professional development days in this district also mirrors that of many districts according to research (Guskey, 2000). Most professional development, according to Darling-Hammond (2010) "does not meet the threshold needed to produce strong effects on teaching practice or student learning" (p. 204). Darling-Hammond explained that when an insufficient number of hours are devoted to professional development and the content that fills those hours is not grounded in best practice, we cannot expect to impact teaching and learning. Yoon, Duncan, Lee, Scarloss, and Shapley (2007) found that professional development experiences of 14 hours or less had

no effect on teachers' effectiveness. In contrast, professional development designed according to best practice and averaging about 49 hours over a 6 to 12 month period were associated with sizable gains (Yoon et al., 2007). Student data from the Yoon study showed a gain of 21 percentile points more than other students on the achievement test used to measure student effects.

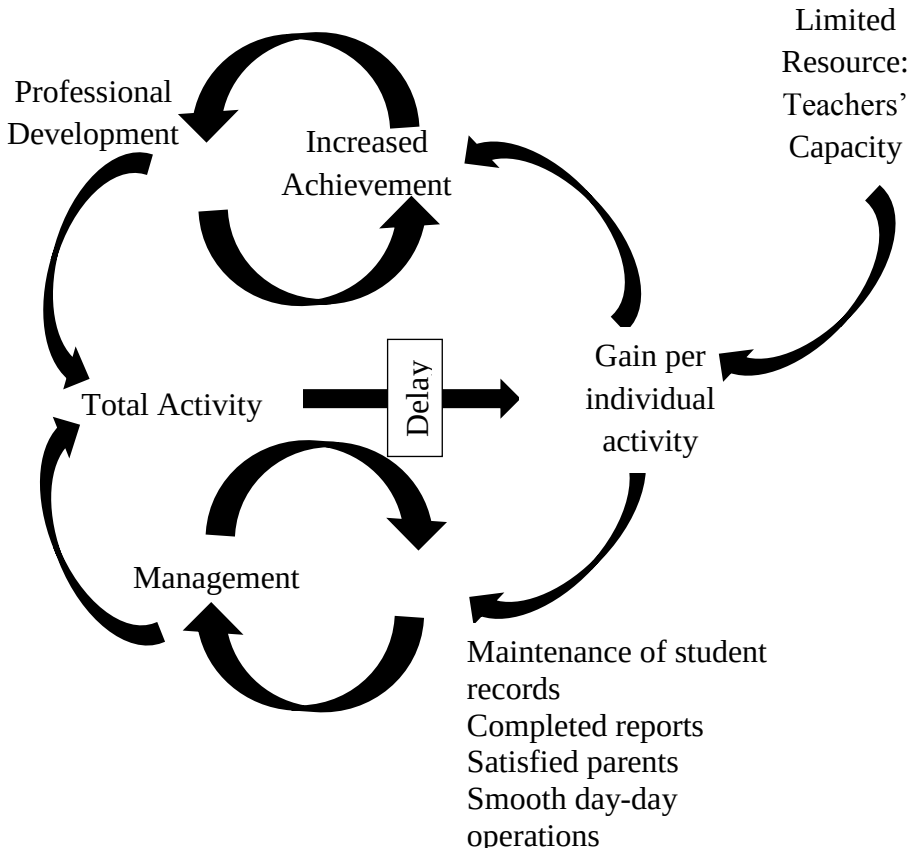

Figure 1. Tragedy of the Commons: Competing Need for Teacher Capacity. Adapted from *The fifth discipline: The art and practice of the learning organization* by P. Senge, 2006. Copyright 2006 by Doubleday. The competing needs of professional development and management have the potential eventually to exhaust the limited resource of human

capacity and reduce the gains experienced in both professional development and management.

Senge's (2006) archetype**,** Tragedy of the Commons**,** might help to explain the relationship between competing interests and teachers' capacity within the context of the system (See Figure 1). Multiple needs compete for teachers' time, energy, and attention. As the needs intensify, the risk of exhausting the resource also increases. On the one hand, teachers engage in research-based, best practice activities in professional development. The more they engage in those activities, the greater the impact on student achievement such that a reinforcing loop is created. Meanwhile, teachers need to address management issues like attendance, record keeping, communication, attendance, state and federal requirements, and additional duties. The gains attributable to management include an efficient, organized classroom, positive relationships with those with whom the teacher maintains strong communication, legal compliance, and accurate record keeping. The gains reinforce the investment of time into management and create another reinforcing loop. Over time, the limited resource, the teachers' capacity is exhausted and both management and professional development suffer.

Identifying a point of leverage (Senge, 2006) can help to maintain balance in a system. In this situation, time is a point of leverage. Time during the school day needs to be structured to support teacher learning and collaboration (Darling-Hammond, 2010; DuFour & Eaker, 1998; Elmore, 2004; Guskey, 2000). By establishing expectations for how time is used and providing guidance in how to manage that time, leaders can provide additional support for teachers (Fullan, 2001; Reeves, 2009). For example, when teachers described the challenge in finding instructional time to implement new strategies specific

to fluency, I wondered about their awareness of the conditions under which fluency practice and development would result in increased reading comprehension. Perhaps teachers would benefit from more support and guidance in determining which strategies will provide them the greatest points of leverage in moving students forward, and then they need permission to abandon those practices that are not yielding the highest results.

Implementation and Impact

Joyce and Calhoun (2010, p. 33) asserted, "Implementation of all approaches to professional development is uneven at present;" and Guskey (2000, p. 185) stated, "Rarely is the implementation of new practices uniform." My findings of variability in implementation of professional development parallel these assertions. Because teachers were not intimately familiar with the model at a conceptual level, I found they experienced implementation of individual components as they understood them. This individual understanding is likely a factor in the variability in implementation. Collaboration, for example, was conceived differently by different teachers; consequently, how teachers implemented or engaged in collaboration varied based upon their mental model.

As shown in Table 2, Joyce and Showers' (2002) research examining the relationship between training components, knowledge, and transfer of knowledge and skills into practice serves to provide insight into the impact of the variability in implementation.

Table 2

Training Components and Attainment of Outcomes in Terms of Percent of Participants

Reprinted from *Student Achievement Through Staff Development* (p. 78), by B. Joyce and B. Showers, 2002, New York: Longman. Copyright 2002 by the Association for Supervision and Curriculum Development. Reprinted with permission.

Training Components and Attainment of Outcomes in Terms of Percent of Participants			
	Outcomes		
Components	**Knowledge (thorough)**	**Skill (strong)**	**Transfer (executive implementation)**
Study of Theory	10	5	0
Demonstrations	30	20	0
Practice	60	60	5
Peer Coaching	95	95	95

My data indicated that although teachers engaged highly in collaboration and self-reflection, lower percentages of staff members had observed another teacher teach or engaged in peer coaching. Ironically, peer coaching and observation, when coupled with study of theory, demonstrations, and practice, have the highest impact on transfer of knowledge and skill into the classroom (See Table 2) (Joyce & Showers, 2002). Consequently, increasing opportunities for teachers to observe each other and engage in peer coaching will significantly increase the likelihood that transfer will occur.

The research supports several other explanations as to the variability in how teachers responded to the model and more so to its individual components. Fitting new strategies and processes into an existing repertoire, for example, is a difficult and uneven process (Joyce & Showers, 1980). Implementation of new practices is progressive and

ongoing (Guskey, 2000), and the impact of professional learning looks different at different points in time (Loucks-Horsley et al., 2003).

Also influencing the level of implementation are the complexity of the task and the type of outcome (Joyce & Showers, 2002). For example, one teacher discussed how her building had been learning about maximizing instructional minutes. She observed how teachers had engaged students in practicing math facts while they waited in line for lunch and concluded that the "little things...really did make a difference." Because the task of facilitating the practice of math facts while standing in line was not a highly complex teaching task, it was readily implemented.

In another example, a teacher explained how as a result of their book study, some teachers were implementing "little tips like that [appear] throughout the book." Again, the complexity of the task influenced teachers' comfort level in implementing that task. Guskey (2000) described a similar concept to complexity of the task as levels of use. Guskey's levels align directly to depth of participants' knowledge and skill level. Joyce and Showers (2002) explained that analyzing task complexity requires examining both content as it relates to existing teacher knowledge and skill and the cognitive demand or level of difficulty in learning the new knowledge or skill.

Additionally, Hill (2009) noted that variability in implementation is due in part to the capacity of the provider. This research supported my findings. For example, implementation of the Six Traits© looked different in one building where the grade level departmentalized and one teacher, the district Six Traits© trainer, was responsible for teaching writing at that grade level as compared to another building or even another grade level where the teachers had not received that level of training. Similarly, the training

supporting fluency looked different between grade levels and among buildings as a result of the differences in trainers. These explanations, grounded in research, provide insight as to the variability of implementation evidenced by the findings.

Leadership: Valued and Essential

Data indicated that teachers value the role of leadership in striving to establish a systemic approach to curriculum, instruction, assessment, and teacher learning. Teachers expressed the need for clarity of expectations in terms of documentation of their implementation of strategies or routines and in terms of their learning outcomes. Once expectations are established and communicated, teachers want a plan for monitoring and evaluating implementation.

Research offers clarity about the relationship between leadership and the setting of goals and expectations. In her meta-analysis of studies examining links between leadership and student outcomes, Robinson (2007) identified five dimensions of leadership, one of which was establishing goals and expectations. Included in this dimension is the monitoring of those goals and the involvement of staff in the goal-setting process with the intent of reaching clarity and consensus about goals (Robinson). Not only do establishing goals and expectations influence student achievement, but they also focus and coordinate the work of the district and of the building (Guskey, 2000; Loucks-Horsley, et al., 2003). Furthermore, establishing goals and expectations "fosters immediate accountability" (DuFour & Eaker, 1998, p. 203).

Teachers engaged consistently in setting student learning goals either individually or with grade level peers. What they seemed to need was more direction from the building and district in terms of expectations for implementation of their professional

learning goals and those of the district. Teachers indicated they wanted a vision for successful implementation. In terms of expectations, teachers wanted guidelines to support their implementation of new strategies or programs.

While goal setting and expectations cultivate accountability, artifacts that provide evidence of implementation serve this purpose as well. All teachers engaged in implementing learning from professional development need to document their implementation either through self-reporting logs or minutes of study-group meetings so that at any point in time, everyone knows where implementation stands (Joyce, Wolf, Calhoun, 1993). By studying implementation, teachers are able to celebrate progress as well as to identify where additional support is needed. Knowing where teachers are in their attainment of a particular strategy or approach helps a school or district know when to cease training in one area and move to another (Joyce, Wolf, Calhoun, 1993). Findings indicated that teachers welcome accountability and follow through, provided expectations are clear.

Throughout the focus group interview, participants expressed a desire for their work and experience to be honored. They began by explaining that they wanted ideas and thinking to be allowed to "bubble up." As the conversation evolved and we probed this concept further, I realized that what they were asking for was their work and experience to be acknowledged and from their knowledge base, to build new ideas and strategies. The research has indicated that in some circumstances, professional development "pays no attention to what is going on in the classroom" (Richardson, 2003, p. 401). Darling-Hammond & McLaughlin (1995) encouraged leaders to allow teachers to have a voice in

what they know and what they want to learn so that they can make the connections to the context of their teaching.

The intent of the IPDM is to involve teachers in the process of school improvement, and this district has engaged a leadership team in supporting professional development. What teachers were thinking in terms of their work and experience being honored would not necessarily represent a change in the current structure, but perhaps a reframing of the delivery of the professional development so that it is perceived as more collaborative and less "dictated."

Final Conclusions

The Iowa Professional Development Model (IPDM) was intended to provide a structure for school professional development efforts. Following an action research framework, the IPDM supports best teaching practice for the purpose of increased student achievement. The review of literature as related to professional development and its implementation articulated in Chapter 2 coupled with the discussion of the findings described in Chapter 4 lead to the following conclusions.

1. Teachers in this study have an abstract, general understanding of the Iowa Professional Development Model (IPDM). Both survey data and focus group interview data indicated that teachers have a surface-level understanding. When asked about how the model could be implemented more fully, teachers said that they would benefit from a detailed explanation of the model itself, an articulation of the implications of the model for their work, and clarification of the expectations for their implementation.

2. Teachers engaged with the individual components of the IPDM to varying degrees. Teachers engaged to the greatest extent in collaboration; although, the word

collaboration generated different connotative associations for different teachers and groups of teachers. Additionally, teachers engaged at high levels in the process of reflection. However, teachers engaged least in peer observation and coaching, which might be explained by the fact that several organizational supports were in place to support both collaboration and reflection. These supports may have contributed to the greater engagement in these two components.

3. Teachers felt the pressure of competing interests and limited time and opportunity to address them. As is the situation in many districts across the state and country, teachers have multiple responsibilities competing for their time and attention. Teachers believed time limited their opportunities to engage more fully with the components of the model.

4. Leadership influenced implementation. Through scheduling, establishing committees, and facilitating goal-setting, leadership influenced implementation. Those components for which there were expectations that were monitored and evaluated engaged staff to a greater extent than those areas that did not have as much organizational support. Teachers spoke highly of leadership and respect the efforts of leadership to systematize their work.

Recommendations for Practice

Based upon the literature review, the data collected from my inquiry, and my interpretations of the data, I offer the following recommendations for improving practice.

1. Communication and explanation of the Iowa Professional Development Model (IPDM) with the intended outcome of a full implementation at the district-wide and building levels. The technical guide and supplemental

resources support districts in engaging in organizational learning about the IPDM. Research supporting the link between professional development and student achievement is significant enough to warrant the time necessary to educate staff fully on the model and the theory and rationale behind it.

2. Conduct periodic audits of time to increase awareness as to how teachers and leaders are spending their time. Increasing awareness of how time is spent can facilitate a more effective and efficient use of time and ensure that the priorities of the district, building, and individual teacher receive the most time relevant to their importance.

Recommendations for Future Research

1. This study examined the response to and participation in the implementation of the Iowa Professional Development Model of elementary teachers in a high performing district. The experience of leadership, both building level and district level, in participating in and responding to the model may be notably different. An inquiry that studied the experience of leadership with the model would be useful in providing additional insight as to the effectiveness of the model and the operational variability among leaders and between building and district leadership.
2. This study was bounded by elementary participants in one high-achieving district in Iowa. It would be useful to conduct a study of all teachers across the state of Iowa to ascertain their level of knowledge of the IPDM and to determine the extent to which they engage in the various components of the IPDM.

3. As the literature reviewed for this inquiry revealed, effective professional development can yield increases in student achievement. Research studies correlating student achievement with the extent of engagement with the IPDM would provide insight as to the efficacy of the model and its discrete components or combinations thereof.

The findings and conclusions from this study revealed variability in the implementation of the IPDM at this site. Although participation in and response to the IPDM varied, teachers were not only willing, but enthusiastic about engaging in learning through professional development. They acknowledged that they were unclear about the IPDM and its implications for their work, but these teachers indicated they would welcome the opportunity to learn.

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Appendix A

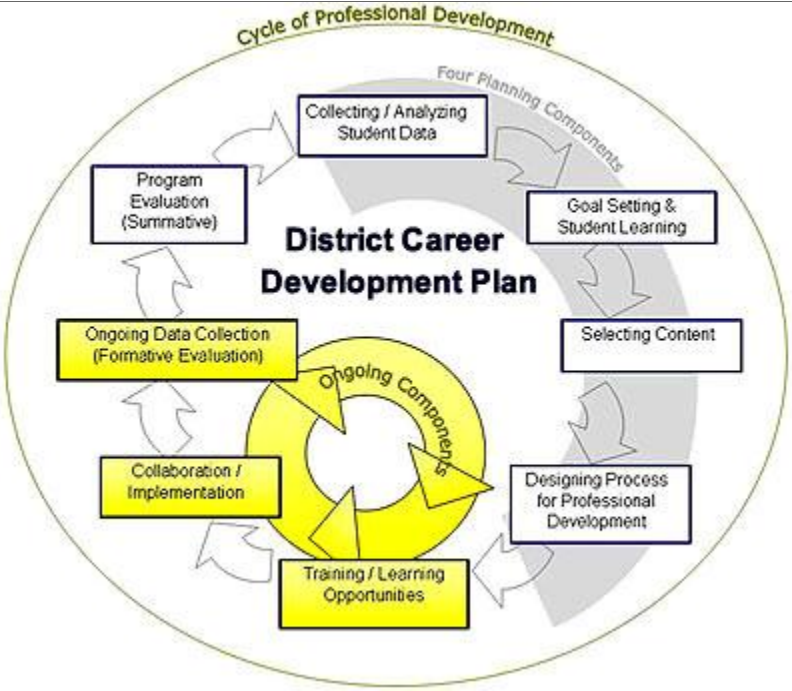
Iowa Professional Development Model

Student Learning -

The Center of School Improvement and Staff Development

Operating Principles

- Focus on Curriculum, Instruction and Assessment
- Participative Decision Making (School & District)
- Leadership
- Simultaneity



Appendix B

IPDM Survey (Administered in Online format)

At what grade level do you teach, or in what area do you teach?

- □ Kindergarten
- □ First Grade
- □ Second Grade
- □ Third Grade
- □ Fourth Grade
- □ Fifth Grade
- □ Art, Music, PE, Guidance, Special Education, Title, ELL, Other

How long have you taught in this district?

- □ 0-3 years
- □ 4-7 years
- □ 8-10 years
- □ 11-15 years
- □ more than 15 years

How many years have you taught altogether?

- □ 0-3 years
- □ 4-7 years
- □ 8-10 years
- □ 11-15 years
- □ more than 15 years

Please indicate your sex.

- □ Male
- □ Female

How would you assess your knowledge of the Iowa Professional Development Model?

- □ Not at all knowledgeable
- □ Somewhat knowledgeable
- □ Knowledgeable
- □ Very knowledgeable

To what extent do you engage in the following components of professional development?

	Not at all	Somewhat	Mostly	Great extent
Analysis of student achievement data				
Study of theory about learning and instruction				
Viewing a demonstration or modeling of skills (either live or via video)				
Practice of skills				
Observation of another teacher's classroom				
Self-reflection about your own teaching				
Peer coaching				
Teacher collaboration				
Documentation of teacher implementation				
Study and analysis of teacher implementation				

What would you say constitutes professional development?

Would you be willing to participate in a focus group interview to discuss your experience with professional development in your building and district?

- □ Yes
- □ No

Please provide your name and email contact information so that I can schedule a focus interview with you. Focus groups will be held during the day on Feb. 21st.

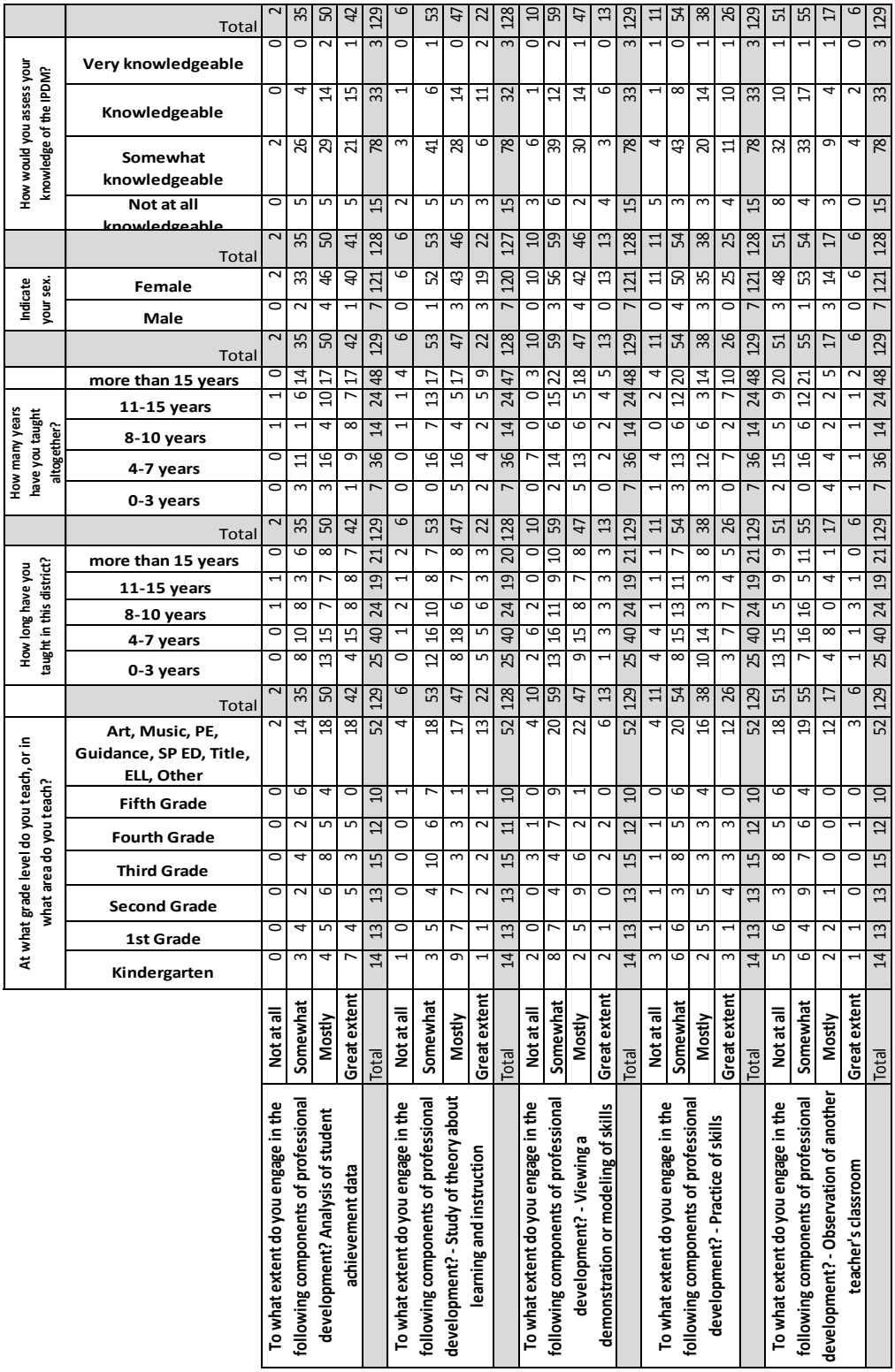
Appendix C

Interview Guide – Iowa Professional Development Model Implementation Study

1. Tell me about your understanding of the Iowa Professional Development Model (IPDM).
    a. How did you learn about the model?
    b. What has been the impact of the model on your teaching?
        i. What do you do differently in terms of teaching and learning?
        ii. What has remained the same for you in terms of teaching and learning?
    c. What has been the impact of the model on your students?
    d. What has been the impact of the model on your school?
2. Describe professional development in your building.
    a. What have you learned?
    b. How do you learn?
    c. What directs your learning?
    d. How do you feel about your own learning?
    e. What is the role of teachers in the building?
    f. What is the role of the administrator?
    g. If you could change anything about professional development, what would it be?
3. Does implementation vary among teachers?
    a. When a newly learned strategy or approach doesn't seem to be working with a student or group of students, how do you respond?
    b. How do teachers collaborate in this building?
    c. How does your grade level approach implementing a new strategy or learning?
    d. How do other teams approach implementing a new strategy or learning?

Appendix D

Cross-tabulation of Survey Data



To what extent do you engage in the following components of professional development?		At what grade level do you teach, or in what area do you teach?								How long have you taught in this district?					How many years have you taught altogether?					Indicate your sex.		How would you assess your knowledge of the IPDM?				
		Kindergarten	1st Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Art, Music, PE, Guidance, SP ED, Title, ELL, Other	Total	0-3 years	4-7 years	8-10 years	11-15 years	Total	0-3 years	4-7 years	8-10 years	11-15 years	more than 15 years	Total	Male	Female	Total	Not at all knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Total
Analysis of student achievement data	Not at all	0	0	0	0	0	0	2	2	0	0	1	1	2	0	0	1	1	0	2	0	2	2	0	2	0	0	2
	Somewhat	3	4	2	4	2	6	14	35	8	10	8	3	6	3	11	1	6	14	35	2	33	35	5	26	4	0	35
	Mostly	4	5	6	8	5	4	18	50	13	15	7	7	8	3	16	4	10	17	50	4	46	50	5	29	14	2	50
	Great extent	7	4	5	3	5	0	18	42	4	15	8	8	7	1	9	8	7	17	42	1	40	41	5	21	15	1	42
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	7	36	14	24	48	129	7	121	128	15	78	33	3	129
To what extent do you engage in the following components of professional development? - Study of theory about learning and instruction	Not at all	1	0	0	0	0	1	4	6	0	1	2	1	2	0	0	1	1	4	6	0	6	6	2	3	1	0	6
	Somewhat	3	5	4	10	6	7	18	53	12	16	10	8	7	0	16	7	13	17	53	1	52	53	5	41	6	1	53
	Mostly	9	7	7	3	3	1	17	47	8	18	6	7	8	5	16	4	5	17	47	3	43	46	5	28	14	0	47
	Great extent	1	1	2	2	2	1	13	22	5	5	6	3	3	2	4	2	5	9	22	3	19	22	3	6	11	2	22
	Total	14	13	13	15	11	10	52	128	25	40	24	19	20	7	36	14	24	47	128	7	120	127	15	78	32	3	128
To what extent do you engage in the following components of professional development? - Viewing a demonstration or modeling of skills	Not at all	2	0	0	3	1	0	4	10	2	6	2	0	0	0	7	0	0	3	10	0	10	10	3	6	1	0	10
	Somewhat	8	7	4	4	7	9	20	59	13	16	11	9	10	2	14	6	15	22	59	3	56	59	6	39	12	2	59
	Mostly	2	5	9	6	2	1	22	47	9	15	8	7	8	5	13	6	5	18	47	4	42	46	2	30	14	1	47
	Great extent	2	1	0	2	2	0	6	13	1	3	3	3	3	0	2	2	4	5	13	0	13	13	4	3	6	0	13
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	7	36	14	24	48	129	7	121	128	15	78	33	3	129
To what extent do you engage in the following components of professional development? - Practice of skills	Not at all	3	1	1	1	1	0	4	11	4	4	1	1	1	1	4	0	2	4	11	0	11	11	5	4	1	1	11
	Somewhat	6	6	3	8	5	6	20	54	8	15	13	11	7	3	13	6	12	20	54	4	50	54	3	43	8	0	54
	Mostly	2	5	5	3	3	4	16	38	10	14	3	3	8	3	12	6	3	14	38	3	35	38	3	20	14	1	38
	Great extent	3	1	4	3	3	0	12	26	3	7	7	4	5	0	7	2	7	10	26	0	25	25	4	11	10	1	26
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	7	36	14	24	48	129	7	121	128	15	78	33	3	129
To what extent do you engage in the following components of professional development? - Observation of another teacher's classroom	Not at all	5	6	3	8	5	6	18	51	13	15	5	9	9	2	15	5	9	20	51	3	48	51	8	32	10	1	51
	Somewhat	6	4	9	7	6	4	19	55	7	16	16	5	11	0	16	6	12	21	55	1	53	54	4	33	17	1	55
	Mostly	2	2	1	0	0	0	12	17	4	8	0	4	1	4	4	2	2	5	17	3	14	17	3	9	4	1	17
	Great extent	1	1	0	0	1	0	3	6	1	1	3	1	0	1	1	1	1	2	6	0	6	6	0	4	2	0	6
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	7	36	14	24	48	129	7	121	128	15	78	33	3	129

		At what grade level do you teach, or in what area do you teach?								How long have you taught in this district?						How many years have you taught altogether?						Indicate your sex.			How would you assess your knowledge of the IPDM?				
		Kindergarten	1st Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Art, Music, PE, Guidance, SP ED, Title, ELL, Other	Total	0-3 years	4-7 years	8-10 years	11-15 years	more than 15 years	Total	0-3 years	4-7 years	8-10 years	11-15 years	more than 15 years	Total	Male	Female	Total	Not at all knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Total
To what extent do you engage in the following components of professional development? - Self-reflection about your own teaching	Not at all	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	1	0	1	1	1	0	0	0	1
	Somewhat	1	5	3	5	4	2	15	35	8	12	7	5	3	35	3	14	3	5	10	35	2	33	35	7	25	3	0	35
	Mostly	8	5	6	4	4	4	20	51	9	18	8	8	8	51	1	15	8	11	16	51	4	47	51	3	32	15	1	51
	Great extent	4	3	4	6	4	4	17	42	8	10	9	6	9	42	3	7	3	8	21	42	1	40	41	4	21	15	2	42
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	129	7	36	14	24	48	129	7	121	128	15	78	33	3	129
To what extent do you engage in the following components of professional development? - Peer coaching	Not at all	4	3	3	9	4	4	20	47	11	13	10	6	7	47	2	12	5	9	19	47	1	46	47	10	31	5	1	47
	Somewhat	4	7	5	4	5	3	19	47	11	14	7	5	10	47	4	16	5	4	18	47	5	41	46	2	30	15	0	47
	Mostly	4	3	2	2	3	3	9	26	1	10	5	6	4	26	0	5	3	9	9	26	1	25	26	2	12	10	2	26
	Great extent	2	0	3	0	0	0	4	9	2	3	2	2	0	9	1	3	1	2	2	9	0	9	9	1	5	3	0	9
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	129	7	36	14	24	48	129	7	121	128	15	78	33	3	129
To what extent do you engage in the following components of professional development? - Teacher collaboration	Not at all	0	0	0	0	0	1	2	3	1	1	1	0	0	3	0	1	1	0	1	3	0	3	3	0	2	1	0	3
	Somewhat	2	2	2	3	2	5	12	28	4	8	6	5	5	28	1	7	1	7	12	28	2	26	28	4	19	5	0	28
	Mostly	5	6	5	6	4	1	20	47	10	16	8	8	5	47	3	15	5	8	16	47	1	46	47	6	26	14	1	47
	Great extent	6	5	6	6	6	3	18	50	10	14	9	6	11	50	3	13	7	9	18	50	4	45	49	4	31	13	2	50
	Total	13	13	13	15	12	10	52	128	25	39	24	19	21	128	7	36	14	24	47	128	7	120	127	14	78	33	3	128
To what extent do you engage in the following components of professional development? - Documentation of teacher implementation	Not at all	2	2	0	1	1	0	14	20	5	6	5	3	1	20	1	5	3	2	9	20	0	20	20	5	11	4	0	20
	Somewhat	5	3	4	3	7	4	21	47	9	16	9	4	9	47	3	16	6	7	15	47	5	42	47	6	31	10	0	47
	Mostly	5	8	8	11	3	4	10	49	9	14	8	9	9	49	3	11	5	11	19	49	1	47	48	2	33	12	2	49
	Great extent	2	0	1	0	1	2	6	12	2	4	1	3	2	12	0	4	0	3	5	12	1	11	12	2	3	6	1	12
	Total	14	13	13	15	12	10	51	128	25	40	23	19	21	128	7	36	14	23	48	128	7	120	127	15	78	32	3	128
To what extent do you engage in the following components of professional development? - Study and analysis of teacher implementation	Not at all	4	2	1	3	4	0	18	32	7	11	8	4	2	32	1	7	7	5	12	32	1	31	32	9	18	5	0	32
	Somewhat	6	6	4	7	5	7	19	54	12	14	9	9	10	54	4	16	3	11	20	54	3	50	53	4	41	8	1	54
	Mostly	3	5	7	5	3	2	9	34	5	13	6	3	7	34	2	10	4	7	11	34	2	32	34	2	17	13	2	34
	Great extent	1	0	1	0	0	1	6	9	1	2	1	3	2	9	0	3	0	1	5	9	1	8	9	0	2	7	0	9
	Total	14	13	13	15	12	10	52	129	25	40	24	19	21	129	7	36	14	24	48	129	7	121	128	15	78	33	3	129

Appendix E

Analyze and Report Data – Response Sheet

This worksheet provides a structured way to facilitate a discussion about data. Recording the team's responses to the questions regarding the data provides useful documentation about the findings and implications. This information will support goal setting and other decision making about professional development.

School Name: IPDM Study Site Data Analyzed By: Dana Schon

Data Collection Period: 1/18/11 – 1/25/11 Date of Analysis: ongoing January 2011-March 2011

Type of Data Analyzed: *(Check the data source you are analyzing.)*

Student Performance Data

___ ITBS/ITED

___ Diagnostic: _____

___ Grades or Progress Indicators

___ Other: _____

Implementation Data

___ _____

___ _____

___ _____

___ _____

___ Other: _____

Other Data

X Other: IPDM Survey Data

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1. What do you notice when you look at these data? What are you comfortable saying about student or staff performance based on these results?

- K-5 grade level teachers all analyze student achievement data to some extent.
  - 21/77 (27%) engage in analysis somewhat
  - 32/77 (42%) engage in analysis mostly
  - 24/77 (31%) engage in analysis to a great extent
- 2 "other" category teachers do not engage in analysis of student achievement data
- 52/129 responses came from "other" category
- 15 respondents (12%) indicated they were not at all knowledgeable about the IPDM
- 78 respondents (60%) indicated they were somewhat knowledgeable about IPDM
- 33 respondents (25%) indicated they were knowledgeable about IPDM
- 3 respondents (2%) indicated they were very knowledgeable about IPDM
- In spite of lack of knowledge of IPDM, 10/15 engage in analysis of achievement data
- 1 K teacher, 1 5th grade teacher, and 4 "other" area teachers report not engaging in study of theory about learning and instruction
- 53/128 teachers report engaging somewhat in study of theory
- 47/128 report engaging mostly in study of theory about learning and instruction
- 22/128 report engaging to great extent in study of theory about learning and instruction

- In spite of not knowing about IPDM, 13/15 teachers report engaging in study of theory of learning and instruction at least somewhat
- 2 K teachers, 3 3rd grade teachers, 1 4th grade teacher, and 4 "other" area teachers report not engaging in viewing a demonstration or modeling of skills
- 59/129 teachers report engaging somewhat in viewing a demonstration/modeling of skills
- 47/129 teachers report engaging mostly in viewing a demonstration/modeling of skills
- 13/129 teachers report engaging to a great extent in viewing a demonstration/modeling of skills
- More teachers engage mostly or to a great extent in the components of Collaboration (97/128), Self-reflection about their own teaching (93/129), and Analysis of student achievement data (92/129) than in any other component:
    - 69/128 – Study of theory about learning and instruction
    - 64/129 – Practice of skills
    - 61/128 – Documentation of teacher implementation
    - 60/129 – Viewing a demonstration
    - 43/129 – Study and analysis of teacher implementation
    - 35/129 – Peer coaching
    - 23/129 – Observation of another teacher's classroom
- 51/129 (40%) teachers have not observed another teacher's classroom
- 47/129 (36%) teachers have not engaged in peer coaching
- More kindergarten teachers (7) engage to a great extent in student achievement data analysis than at any other grade aside from the other category (18)
- More K-2 teachers (27/40) engage mostly or to a great extent in study of theory about learning and instruction that do 3-5 teachers (12/36)
- Twice as many K-4 (55/66; 83%) teachers engage in collaboration mostly or to a great extent than do 5th grade teachers (4/10; 40%)

2. What additional questions do these data generate?

- To what extent can this data be generalized to those who did not respond to the survey?
- What would be the impact of a more systemic, cohesive implementation of the IPDM?
- What would be the impact of teaching staff about the IPDM itself?
- How might opportunities for peer coaching and observing other teachers be created?
- I wonder if those who did observe each other did so through a mentor program or some other course/requirement?
- What might account for the significant difference in collaboration between K-4 and 5th grade teachers?
- What does research say about the effect size of implementing peer coaching and observation of each other's teaching?

3. What do these data indicate students need to work on? Based on these data, what can we infer teachers/administrators need to work on?

- Data indicate a need to support peer coaching and teacher observations of each other's classrooms
- Data indicate a need for education around the IPDM
- Data indicate a need for more systematic implementation of the IPDM as a model

4. What do the results and their implications mean for your district's comprehensive school improvement plan/district career development plan?

- For the district to determine

Appendix F

IPDM Study: Categories, Codes, Themes

Level			
1	2	3	**Themes and Categories**
0.000			**Introductions and Demographics**
1.000			**Combinations of IPDM Components Experienced to Varying Degrees**
	1.05		IPDM? We're somewhat knowledgeable
	1.10		Teachers engage highly in collaboration and self-reflection
		1.101	Goal-focused; ICDP grounded
	1.15		Study of theory, practice of skills, documentation of teacher implementation, viewing a demonstration
	1.20		Study and analysis of teacher implementation, Peer coaching
		1.201	Implementation of strategy, practice, approach varies with individual teachers
	1.25		Observation of another teacher's classroom
2.000			**Professional development is about our learning**
	2.05		What we learn
	2.10		How we learn: let it bubble up
3.000			**It's about time…**
	3.05		Time as limited resource when attached to professional development
		3.055	A barrier to implementation of new learning
		3.010	Limited opportunities for collaboration with team
		3.015	Limited instructional time to implement new routine, tool, strategy
		3.020	Influences systemic approach
5.000			**Leadership is valued and essential**

	5.05		Provide focus and specificity
	5.10		Teachers want clear parameters and expectations
		5.105	For implementation of professional development
		5.120	Regarding student learning outcomes
	5.15		Follow through